Observations
ON THE
TREATMENT OF HYPERPYREXIA,
AS ILLUSTRATED IN ACUTE RHEUMATISM,
BY THE EXTERNAL APPLICATION OF COLD.*

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CASES of acute rheumatism in which, after a course of variable severity, the temperature suddenly rises from 103° or 104° to 107°, 108°, or 109°, have usually proved fatal within a very short time after the latter temperature (109°) has been attained. In the majority, indeed, of published instances this has been the case within one or two hours; and Wunderlich regards this terminal rise as "proagonic," or as one of the phenomena of death—a view still further borne out by the fact that a further elevation is often continued for one or two hours after life has apparently ceased.

I published in THE LANCET, last year, an instance of a case where, by means of repeated immersions in the cold bath, life was protracted for nearly thirty-six hours after the patient's temperature, while suffering from acute rheumatism, had reached 109°, death finally taking place by exhaustion at a temperature of 104·4°. This case had been complicated by a large bleeding, practised before the bath was employed, in the hope of thereby producing a reduction of temperature, when this had reached 109°, and when the patient was violently delirious. In my commentary on that case I showed that venesection to more than twenty ounces had no effect whatever in checking this rise; and I also expressed a hope that cases of this nature, treated in future by the cold bath and without venesection, might yet show a favourable termination.

This hope, I am glad to say, has been realised in two cases which have been under my care in the course of the present summer; where the patients, a man and a woman, have completely recovered under this treatment, after rapidly attaining a temperature, in the one case, of 110°, and, in the other, of 107·3°. Both were first attacks of the disease; and, indeed, this ordinarily fatal mode of termination appears to be more common under these circumstances.

I shall narrate them in the order in which they occurred, though they were both in the hospital at the same time; and the rise of temperature in each occurred within two days of one another, the higher temperature attained by the woman being due to the fact that we were not so fully prepared for the emergency as in the subsequent case.

The female patient, Mrs. Brophy B——, aged forty-nine, married, no children, was admitted into University College Hospital on the 5th of June, 1871. Had lived badly until twelve months ago. Since then she had been in better circumstances. No direct hereditary tendencies; but one aunt had died from rheumatic fever. No previous diseases, except "inflammation of the liver" fifteen years ago; but she was liable to hysteria and palpitation. Menstruation had ceased for twelve months past.† Her present illness—her first attack of rheumatic fever—began on the night of the 27th of May, with pain in the right hand. She had had slight pains in the feet for some days previously, but had not laid up. On the 29th (two days later) she had a rigor, which recurred on several successive days. After this the knees and ankles were affected. She knows of no cause for the illness. Did not perspire before admission, had no cough, and was free from pain in the chest or palpitation.

On admission, on the seventh day after the first rigors, or the ninth day of the disease, the patient looked depressed; had an earthy tint of skin; the tongue was furred and tremulous; the joints of all her extremities were painful, but especially the knees, ankles, hands, and feet. Grazing friction was heard over the heart; the apex was in the fourth interspace, a quarter of an inch outside the nipple, but the area of dulness was not increased. The cardiac region was tender. The first sound was muffled at the apex; but there was no distinct murmur. The patient perspired freely. She was placed on the treatment by the perchloride of iron, introduced by my friend and colleague, Dr. Reynolds, half a drachm of the tincture being given every four hours, and the joints were wrapped in cotton-wool.

On the 9th of June (the thirteenth day of the disease), the patient's state was much the same. She perspired profusely; the tongue was still furred. Friction was abundant over the heart; dulness only to the third cartilage. The joints of the upper extremities were more painful, those of the lower extremities less so.

On the morning of the 10th (fourteenth day of illness), there was little change, and the patient still presented the appearance of an ordinary case of acute rheumatism, with a rather marked degree of weakness. Up to this date the pyrexia, as measured by the temperature, had been of an extremely moderate type. On the 5th, the day of admission, it had reached, in the evening, 102·9°; but though taken regularly on the mornings and evenings, it had only once subsequently (on the evening of June 9th) been even as high as 101·2°, and on two occasions the morning temperature was 99·2° and 99·6°. On the morning of the 10th it was measured, but by some accident not recorded, though found higher than before; I am, however, assured by my excellent clinical clerk, Mr. Benham, who took it, and by my most reliable assistant, Mr. Bindley, who was present at the time, that it did not exceed 102° (axilla). The patient's aspect was then that of increased prostration, and she was perspiring freely, but no other change was noticed in her general state. At 3 P.M. on the same day (fourteenth day, five days after admission, and twelve days since the rigor), the temperature was found to have risen to 105°, and at 5.30 P.M. it was 105·6° (axilla). I was sent for, and reached the hospital at 6 P.M. The temperature in the axilla was then 106·4°. It had risen 4·4° since 9 A.M., or within nine hours. At this time the patient was entirely free from pain in her joints. She was conscious, but spoke with difficulty, and with an extremely slow articulation; otherwise her manner was natural. She complained only of weakness. The face was a dusky purple, the eyes suffused, and the conjunctiva much injected. A thick mucus had collected in the inner canthi. The tongue was tremulous, as were also the hands. She lay with her eyes closed, sighed deeply from time to time, but roused when spoken to. The pulse was 112, respiration 44 in the minute. The heart's apex was immediately under the nipple, in the fourth interspace. The dulness was at the level of the third left cartilage. There was strong friction at the base; a short, highly-pitched murmur at the left apex. Having in one case of rheumatic fever, when the temperature had risen rapidly from 101·8° to 104·4°, seen an immediate and rapid fall of four degrees to 100° within ten hours, and without any subsequent exacerbation, follow the administration of one scruple of quinine, I also gave this patient a scruple of quinine in powder, suspended in mucilage; and this dose was repeated every half-hour until 8.30 P.M., when the patient had taken in all 120 grains of quinine. The last dose was vomited. From 6 P.M. to 7.35 P.M. the temperature oscillated between 106·6° and 106·2°. The pulse varied from 108 to 112; the respiration from 38 to 44 in the minute. At 7.50 P.M. the temperature had risen to 106·9°; pulse 120, respiration 40 in the minute.

Being at this time obliged to leave the hospital for a short time, I requested my assistant, Mr. Bindley, in case the temperature reached 107°, to put the patient into a bath at 96°, and to keep her there, proposing to endeavour to effect by this means a gradual reduction of temperature. There was, however, some delay in getting the bath prepared, and in the meantime the temperature rose rapidly, being 107·1° at 8.5 P.M., 108·4° at 9.15 P.M., when she became entirely unconscious, and 109·1° at 9.50 P.M., when the patient was put into a bath of 96°. At this time I returned, and thought the patient in the act of dying. She was absolutely unconscious; the pulse was imperceptible; the face in the highest degree cyanotic; and she was drawing the few last irregular, gasping, stertorous respirations which commonly precede the act of death. At 9.55 P.M. the temperature in the rectum was 110°. I had questioned whether to take her out of the bath before death, but finding the tem-

* Read at the annual meeting of the British Medical Association.
† This returned after her recovery while at the All Saints' Convalescent Home at Eastbourne.

perature still rising, I determined to make one vigorous effort at its reduction. Ice was fetched; a large lump was placed on her chest, another on her abdomen; a bag filled with ice was tied down the length of her spine; and while two assistants baled the warmer water out of the bath, two others poured ice-water as rapidly as the pails could be filled over the patient. At 10.10 P.M., or within fifteen minutes, the temperature of the rectum had fallen to 109·1°; in five minutes more (10.15 P.M.) to 108·4° (the average temperature of the bath being then 66°); at 10.20 P.M. the temperature in the rectum had fallen to 107·5°, and at 10.25 P.M. to 106·2°. The pulse now became perceptible (140), and the patient showed some signs of consciousness. Brandy was freely given. At 10.35 P.M., or within half an hour of the time that ice was first applied, the temperature in the rectum had fallen to 103·6°, and the patient was taken out of the bath (temperature of bath 63°), and the ice-bag was removed from the spine. At 10.55 P.M. the temperature in the rectum was 100·6°. The patient could speak, and had a certain imperfect consciousness. The lividity of the face and the suffusion of the eyes had disappeared, but spasms of rigidity attacked at times the muscles of the lips and of the neck, but not of the limbs. At 11.5 P.M. the rectum temperature was 99·5°. As there was some difficulty in swallowing, an enema of brandy was now given. The patient took six ounces of brandy from 10.10 P.M. to 11.10 P.M. At 11.25 P.M. the temperature in the vagina (taken here as an enema was retained in the rectum, the patient being nearly unconscious) was 97·4°. The temperature had therefore fallen 6·2° within fifty minutes after her removal from the bath, when her temperature was 103·6°; and the total reduction from the time of the first application of the ice was 12·4° Fahr. within a period of an hour and a half, during which she had really only been exposed to the influence of the cold for half an hour. At 11.40 P.M., or twenty minutes later, the temperature still remaining at 97·4° (vagina), and the patient presenting signs of threatening collapse, with a scarcely perceptible pulse, I thought it desirable to guard against any further fall of temperature. Hot bottles were applied to the feet, and a hot-water bag was placed against the back. Within twenty minutes the temperature now rose to 98·2° (vagina). The pulse became perceptible (130); respiration 42.

By 1.15 A.M. on June 11th, or within an hour and twenty minutes, the temperature had risen to 99·4°; the pulse was 118, respiration 32; she had been partly conscious, and now dozed quietly, though some strabismus was noticed about this time. From 1.15 A.M. to 3.30 A.M. the temperature again slowly rose to 101·8°; consciousness was apparently restored;* the patient took brandy freely, and spoke; the pulse was 112, respiration 40. From 3.30 A.M. to 7.35 A.M. a gradual rise of temperature continued, reaching at 7.35 A.M. 104·5°. At 7.40 A.M. she was again put into a bath (temperature 64°). Five minutes after her immersion the temperature in the vagina was 105°; it then began to fall, and in twenty minutes had fallen in the vagina to 103·9°. She was immediately removed from the bath (temperature of bath at patient's removal 66°); but the fall continued for forty minutes longer, reaching 99·4° at 8.40 A.M., or within an hour of this second application of cold there had been a reduction of temperature of 5·6° Fahr. At 8.30 A.M., while the temperature was 100·8°, there was a strong rigor, which was several times repeated. Hot bottles were again applied, but in spite of these the fall of temperature lasted for ten minutes longer—i.e., until 8.40 A.M.,—and amounted to 1·4° within this short time, reaching 99·4°. Deafness from the quinine taken the afternoon before became very distinct about this time, and lasted for forty-eight hours. During the night the patient had, by mouth or enema, about twenty ounces of brandy. The temperature after this rose gradually to 100°, but did not rise above 102° for thirty-six hours. During this period the pulse and respiration ratio averaged 96 to 30. She perspired freely, was quite conscious, passed a natural motion and urine of 1014 specific gravity, and had some quiet sleep. Brandy was given, according to the strength of the pulse, in doses varying from two drachms to half an ounce every hour.

Some cough now appeared, with purulent expectoration. The lungs were, however, resonant on percussion; but on the following day moist and sibilant râles became general through the lungs. The cardiac friction and apex murmur were entirely unchanged, and there was no increase of the cardiac dulness. The knees now became again slightly painful; the tongue became thickly furred, and she was occasionally sick, but took an abundance of milk, beef-tea, and eggs. Lime-water was given with the milk, and within this period—viz., at 3 P.M. on the 12th, or thirty hours after the last fall of temperature, being the sixteenth day of the disease, the seventh after admission, and the second of this treatment,—the pulse becoming weak and increasing in frequency to 120, quinine was again given in doses of five grains every four hours. At 8.50 P.M. on the 12th, or thirty-six hours after the previous fall of temperature, and forty-eight hours after the first rise, this had again risen to 102·1°. In thirty minutes later it had risen to 102·2°, and in order to check a further rise the ice-bag was applied to the spine. Within thirty-five minutes the temperature had fallen to 101·6°, or three-fifths of a degree; in three hours it had fallen to 101°, when the ice-bag was removed. It fell another half degree in the quarter of an hour succeeding, and it then again slowly rose with minor oscillations within five hours to 102·4°, when the ice-bag was again applied for three hours, producing within this period a reduction of 1·5°. The ice-bag was then removed, and a slow rise of temperature ensued during three hours and a half to 102·5°, when the ice-bag was reapplied. Its effect this time was less marked. The temperature fell in three hours 1·1°, and continued below 102° for three hours longer; but although the ice-bag was continuously applied, it rose to 102·2°, and remained nearly at this height during the succeeding three hours; then it fell three-tenths of a degree, and oscillated between 101° and 101·9° for eight hours longer, when, the temperature being only 101·6°, the ice-bag was removed from the spine, after it had been continuously applied during eighteen hours.

During this period—i. e., on the third day from the attainment of the temperature of 110°—moist râles had appeared throughout both lungs, but had again given way to dry sibilant râles; abundant muco-purulent expectoration was present. The tongue was still covered with a creamy fur. The pulse had improved greatly in quality, varying in frequency from 100 to 104, while the respirations varied from 26 to 30 in the minute. The deafness disappeared on the beginning of the fourth day, though the patient was still taking quinine in doses of five grains every four hours, or at the rate of half a drachm in the twenty-four hours. The cardiac dulness remained at the level of the third cartilage. The friction continued, and also the apex murmur noticed on the 10th. There was great tenderness over the precordial region.

The patient had taken during each of the past two days eighteen ounces of brandy in the twenty-four hours, and also sixteen ounces of beef-tea, four pints of milk, and seven eggs. On the fourth day of this treatment (the sixteenth day of the disease), there was some dulness at the base of the right lung; fine and coarse moist râles had again become general throughout the left lung, and there was some blowing breathing over the dull area in the right lung. The moist râles on this side were limited to this part. The temperature on this day (June 14th) varied from 101·8° to 102·8°. During an hour and a half, from 8.30 A.M. to 10 A.M., when the temperature was 101·8°, the ice-bag was applied to the spine *without any effect in reducing the temperature*. Indeed, this rose during the application to 102·1°, or three-tenths of a degree, and it was, therefore, discontinued, and the temperature subsequently fell during the ensuing three hours to 101·3°, after which it gradually rose during eleven hours, to 103·2° (June 15th, the nineteenth day of the disease, and the fifth of this treatment). At this time the ice-bag was re-applied for six hours, during which period a reduction took place of 1·8° in the temperature, or from 103·2° to 101·4°, when it was removed.

At this time a great improvement was noted in the patient's strength. She could turn in bed without assistance; the pulse was 96, dichrotous, but of good volume; the dulness at the right base, noted twenty-four hours previously, had disappeared, though abundant moist râles persisted at both bases. The cardiac friction continued, but the murmur at the apex had disappeared, and the precordial tenderness had diminished. The bowels had again been opened naturally. She had in the last twenty-four

* Subsequently it was found that the patient remembered nothing of the treatment after the first dose of quinine. Some days later she asked if she had not been very ill.

hours taken eighteen ounces of brandy, twelve ounces of beef-tea, and seven eggs. The brandy was now ordered to be reduced to twelve ounces in the twenty-four hours.

During the next twenty-four hours there was no further application of the cold. The temperature oscillated between 100·5° and 102·7°. The pulse remained about 96, and the respiration 24.

On the 16th (the twentieth day of the disease and the sixth of this treatment) the strength was still further improved. The tongue was still furred; but she had, in addition to twelve ounces of brandy, taken two pints of beef-tea, three pints and a half of milk, and seven eggs in the previous twenty-four hours; and had passed a natural stool. There was no dulness over the lungs, and less moist râle; but still some weak breathing at the right base. The pulse (96) was small, but well sustained, and without dichrotism. The cardiac friction was diminished; the apex murmur was faintly audible. She had passed seventy-two ounces of urine. The quinine was reduced to one grain every three hours, or eight grains in the twenty-four hours.

On June 17th (the twenty-first day of the disease and the seventh of the treatment) the temperature fell to 98·4°. On the following day it never rose above 99·1°; and after this it remained normal, though falling on the 22nd to 97·9°.

On the 18th, though only a week had elapsed since the excessive temperature, the patient sat up in bed, and ate a boiled sole for dinner.

The râles in the back entirely disappeared on the 22nd—the twelfth day after the intense pyrexia, and the twenty-sixth day of the disease. The heart's sounds had now become natural, with the exception of a very faint friction at the base, which disappeared within the following two days. The apex had returned to its natural position, the dulness was at the lower border of the third interspace, and there was no murmur. From this time, though the patient remained feeble for a few days longer, there was uninterrupted improvement, with the exception that on the 1st of July (the thirty-fourth day) the morning temperature was 100°. This had, however, fallen to 98·5° in the evening; and there was no subsequent relapse. The patient got up, walked about the ward, and was discharged for Eastbourne on the 10th of July—thirty days after the intense pyrexia, and forty-four days after she was first taken ill.

(To be continued.)

HOW TO RELIEVE OUR CROWDED LUNATIC ASYLUMS.

BY S. W. D. WILLIAMS, M.D.,

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THAT the building of monster lunatic asylums and their overcrowding is rapidly becoming an intolerable abuse everyone seems to be agreed. Remedies of various kinds have been propounded for this evil by the highest authorities on the subject. But they have all been in the nature of theories which, tested by practice, would seem more or less to have failed.

The plan which it is the object of this communication to ventilate has the following advantages. It has, so far, successfully borne the test of practice. To be put in action it requires no alteration in the present laws. It disturbs no existing arrangements. It costs the ratepayers nothing; and is, to my mind, the most rational solution of the question.

The population of this asylum, in common with many others, has, since its opening twelve years ago, nearly doubled in numbers, and "the cry is still, they come." We have constantly had to make additions to the fabric, until, from a hospital of 450 beds, it has risen to one of nearly 800; and magistrates, doctors, and ratepayers are alike tired of the everlasting mess of bricks and mortar.

Suffering under this stress, I have for the last twelve months put in practice the following plan:—I am constantly receiving applications from the friends of chronic lunatics confined in this asylum that they may be allowed to have their relatives home. These applications I have encouraged, and have recommended the Committee of Visitors to entertain favourably. I have always previously made careful inquiries as to the nature of the home the lunatic will be taken to, and also as to the character of the relatives. And I need not say that I have been careful to allow no patients to go unless I was morally certain they were harmless. If there has been the slightest doubt on any of these points, I have required the nearest relative to sign the declaration provided by 16 & 17 Vict., c. 97, s. 81.

During the last fifteen months, twenty-one patients have thus left the asylum, and as yet not one of them has returned, neither have I heard that any of them have in any way annoyed the public. Several of these, thus allowed to return to the world, had been in the asylum many years, and most of them two or three years.

This proceeding appears to me to be much better than the boarding-out system as practised in Scotland. Some years ago boarding-out was tried here, harmless patients being allowed to live in the village with the wives of the male attendants; but, for many reasons, it had to be abandoned. Who so proper to take charge of an insane person as his own relatives? I entirely decline to subscribe to the legal shibboleth that a lunatic is the property of the State. The State should interfere only where the lunatic is ill-used or insufficiently cared for, or is dangerous to himself or others. If the poor are at all willing or able to take charge of their mentally afflicted relatives, by all means let them do so. I believe that much might be done in this direction to relieve our overcrowded wards. Doubtless there are drawbacks to it. It may give rise to a murder or a suicide; and then of course the poor doctor will be blamed for allowing dangerous lunatics to be at large. But no human plan is perfect; and it would be better to run the risk of a chance accident than to rest, as we do now, under the stigma of unnecessarily detaining people in asylums.

There is, however, one thing that must be remembered. My plan is not a cheap one *quoad* the asylum proper. The patients that would be thus discharged are probably, in many instances, extremely useful and industrious, give little trouble, and cost nothing in the way of medicine and extras. Therefore, sending them out, and admitting troublesome and recent cases, would be a bad change as far as the quiet and comfort of the asylum are concerned, and would also probably slightly increase the cost of maintenance per head. But the asylum is built for such cases, and is not intended to be used as a workhouse for chronic lunatics. The ratepayers would gain in the end by not having to pay for any more building operations.

July, 1871.

REPORT OF

THREE OBSTETRICAL CASES OF AN UNUSUAL CHARACTER.

BY J. HARRIS ROSS, M.D., M.R.C.S.

(Concluded from page 189.)

A CASE OF PUERPERAL CONVULSIONS TREATED BY CHLOROFORM AND VERSION.

I WAS sent for on Sunday, Dec. 5th, 1869, at 6 P.M., to see Mrs. C——, aged twenty-two, who had fallen from her chair in a fit. She was lying on her bed, and had a flushed face and bounding pulse; and expected daily to be delivered of her first child. I was informed that the fit was sudden, and came on whilst sitting at tea; that she struck her head against the table in falling; that she had complained of headache all day, but had been about her household duties. She had most violent paroxysms of convulsions, which came on about every ten minutes, leaving her during the intervals perfectly unconscious.

On making a vaginal examination, I found the os extremely high up, so as hardly to be reached with the finger; it was not at all dilated, though very flaccid and abounding with secretion. There was no "show." I at once sent for a medical friend of mine, and, after consultation, we decided to give chloroform, and try to evacuate the uterus as quickly as we could. After placing a cork between her teeth, my

friend gave her chloroform, whilst I proceeded to dilate the uterus with my fingers. After gradual extension of the os for about half an hour, I was enabled to introduce my left hand into the uterus, and had no difficulty in turning, and bringing the legs beyond the vaginal opening. My friend then took my place, and speedily completed the delivery. After the removal of the placenta there was a considerable escape of blood; but this was easily controlled by external manipulation over the uterus. After a little artificial respiration, I was pleased to find the child was alive.

Our patient had but one attack of convulsions after the administration of the anæsthetic, and that was during a slight interval when we had removed the lint from her face. Half an hour after delivery, her pulse had diminished from 140 to 120, and she had no convulsions. We then left the house, and on again visiting her an hour afterwards she had had no return of the convulsions, but was still unconscious.

Dec. 6th.—Seen three times during the day in a semi-conscious condition, and when spoken to sharply replied, "Don't;" "Let me alone." Has neither eaten nor drunk anything since delivery; urine dribbles away involuntarily; has one hand constantly between her legs; pulse 126. She is very morose when offered nourishment, and on one occasion knocked a cup out of my hand.

7th.—Took a cup of beef-tea freely during the night; cerebral symptoms and moroseness much the same as yesterday. I ordered clean linen to be applied, and the administration of beef-tea, eggs, milk, and brandy, &c. I saw her again in the afternoon, and found that none of my directions had been carried out, and that the nurses were both in a state of intoxication. I at once had the services of these dipsomaniacs supplanted by that of a temperate woman. In the evening I found the patient had taken nourishment liberally, had passed water at will in a vessel, and would answer a question when asked; still she was not quite conscious.

8th.—Asked questions of the attendant during the night, who showed her the baby, and the patient laughed at the idea of its being her own. Talked quite rationally, and ate a chop for dinner.

From this date she gradually recovered her strength. She sat up for two hours on Dec. 15th, and was discharged quite well on Dec. 27th. She states that she remembers nothing from the morning of the 5th (when she had a severe headache) until that of the 8th. I am sorry I did not have an opportunity of examining the urine during the first two or three days, for I was about introducing the catheter on the occasion of her being first placed under chloroform, when the sphincter gave way and all the urine escaped, and for the next two or three days it kept dribbling away. She had no sign of lactation. On Jan. 16th, 1870, I met her in the street, carrying her baby. They both looked hearty and well.

This case is interesting at the present time owing to the diversity of opinion which exists as to whether we ought to bleed in these cases. On the one hand, we find Drs. Churchill, Johnson and Sinclair, Ramsbotham, Tyler Smith, and others, all strongly recommending bleeding. In fact, one of them says: "Bleeding is our great reliance; the lancet is our sheet anchor; and blood may be taken to a large extent." On the other hand, we have the late Sir J. Simpson, Dr. Braun of Vienna, Dr. Barnes, Dr. Tanner, &c., all equally averse to bleeding. Dr. Tanner, in his last work on "Diseases of Pregnancy," says: "I have no hesitation in expressing a decided belief that bloodletting, as a general rule, without exerting any valuable effect on the symptoms, is calculated to produce irreparable mischief."

Since writing the above I have read in the last volume of "Guy's Hospital Reports" a paper by Dr. Phillips, in which he relates an interesting series of cases all treated without bleeding.

A CASE OF RETROVERSION OF GRAVID UTERUS.

I was sent for on Oct. 5th, 1870, at 11 P.M., to see Mary Ann C——, aged twenty, who had been admitted into the lying-in ward of the Brighton Workhouse. She had been sent in during the early part of the day by a surgeon, who had certified that she was in labour. On examination, I ascertained that she was six months pregnant with her first child, and the midwife, who had been with her all day hourly expecting her to be confined, told me the patient had been in strong labour all day. At the outlet of the vagina I found a tumour presenting about the size of a child's head, being partly inside and partly out; it felt very much like the fœtal head enveloped in a muscular covering. At first I was troubled to find the os uteri, but on firmly pressing the tumour back with one hand, and inserting the fore-finger of the other well up behind the pubes, I could just reach the os, which at once told me I had got a case of retroversion. On examination per rectum I was confirmed in my diagnosis, as I found the gravid uterus pressing firmly upon the lower gut. A large tumour was to be felt in the abdomen, which, on introducing a catheter (this was done with much difficulty) and emptying the bladder, entirely disappeared. As I could not then reduce the retroversion, I left her, and on my visit next morning found her bladder again distended, and, after repeated trials, I was quite unable to introduce a catheter. During the day I procured Barnes's bags for dilatation of the uterus, and on my evening visit, finding I could not reduce the retroversion nor empty the bladder, I inserted the largest one into the rectum, and dilated it. This improved the state of affairs a little, for a rush of urine occurred which relieved the bladder somewhat, but a violent expulsive pain coming on forced the bag out of the bowel. Seeing that the sphincter was very dilatable, and the patient being under chloroform, I introduced my hand (a small one) into the rectum, and immediately afterwards had the satisfaction of finding the uterus with its contents ascend into the abdomen. I then had no difficulty in evacuating the bladder. I gave her twenty minims of nepenthe and left her for the night. On my visit next morning I found she had passed a fair night, but could not retain her water. I then ordered her thirty grains of hydrate of chloral, to be taken at bedtime. In about two hours after she had taken it she woke up suddenly and aborted, before the midwife, who slept close to her, could get to her assistance. Query: Had the chloral any connexion with the abortion?

The fœtus I have in my possession, and it has the appearance of being of at least six months' growth. She made a good recovery. On examination a month afterwards, I found the uterus still retroverted, so that I think this must be the normal condition of the organ with her.

This young woman was a most refractory patient; for, although she was in so much pain, I had on each visit to put her under the influence of chloroform prior to making any attempt at reduction of the retroversion.

FRACTURE OF THE BASE OF THE SKULL; PARALYSIS OF ABDUCENS; RECOVERY.

REPORTED BY
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(*Communicated by* THE DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

J. C——, able seaman, of H.M.S. *Rinaldo*, on October 26th, 1870, fell from the fore-topmast cross-trees into the foretop, cannoning against a man in his descent, and falling obliquely on the right side of his head. He was picked up unconscious, with blood flowing profusely from the ears, and was at once brought to the Naval Hospital. When received the coma was found not complete; he could be aroused if loudly spoken to; the pupils were dilated, sluggish, but not insensitive to light, and blood was flowing freely from the ears. This flow of blood, and afterwards of blood mixed with yellowish fluid, continued for three days, and ceased on October 29th. On November 2nd he was found to present slight but sufficiently marked internal squint of the left eye. No other cerebral symptom. The squint increased daily. On the 21st of November, the report is, "Looking at an indefinite far point directly before him, there is inversion to the extent of an English line. He cannot evert the eye beyond the centre point or O of the strabismometer; there is lateral diplopia except when looking to the extreme right, and asthenopia."

After this date he began to improve. On December the 14th the inversion had diminished to half a line. He had acquired the power of abduction to the extent of nearly two

lines. The sight of the eye was good. He could read No. 20 Jaeger at twenty-two feet, and accommodation was unimpaired, = ½; diplopia continued, except when looking considerably to the right of the middle line. He improved slowly but steadily. A month after the last date, images of objects immediately in front of him were coincident, and he had power of eversion to the extent of more than two lines.

On the 18th of February, abduction could be effected completely, and the only want of parallelism between the optic axes was about twenty degrees to the left of the direct centre. On the 8th of March he was quite well, the optic axes coincident at all angles, and with perfect binocular vision when tested with the stereoscope.

In Holmes's "System of Surgery," two cases of paralysis of the sixth nerve alone, following fracture of the skull, are given. One terminated fatally, and the other was operated on for the resulting squint without any good result. A case of complete recovery following this accident appears worthy of being placed on record.

August, 1871.

TWO CASES OF HYDROPHOBIA TREATED BY HYDRATE OF CHLORAL.

BY HENRY W. T. ELLIS, M.R.C.S. ENG., L.R.C.P. EDIN.

ON the 18th of April I was sent for to visit Albert P——, aged seven years, who three weeks previously had been bitten in the face by a stray dog, one of the bites involving the inner canthus and conjunctiva of the right eye. I was told he had complained the day before of being poorly. His parents, however, looked upon the attack as a slight febrile one from cold, and took no further notice than to give him an aperient. His anxious and frightened expression of countenance powerfully impressed me; and upon finding he dreaded the sight of any fluid, and could not be got to swallow it, the fact was quite evident that I had to deal with a case of rabies,—this characteristic symptom, denoting an affection of the œsophageal branch of the eighth pair, being so well marked. His pulse was quick; tongue covered with white fur; he was restless and fidgety, refused food as well as drink, and on making the attempt to get him to swallow a little tea the effort brought on a violent spasmodic constriction of the throat; even the sight of the cup excited agitation and aversion, but he did not complain of much pain in the bitten parts. Knowing the inefficiency of all treatment in this frightful disease, I determined upon trying the hydrate of chloral, at any rate with the hope that it would in some measure control the excitement and violence that in another stage might be expected to follow; and in this I am happy to say I was not disappointed, for it certainly mitigated those symptoms in a remarkable degree. The remedy was administered in doses of a teaspoonful of the syrup, diluted with a little water, every two hours, and subsequently every hour, considerable difficulty being of course experienced in the effort to swallow, but it is believed most of it was eventually got into the stomach. As regards progress, the disease, however, went on unchecked. On the second day the sense of touch was most painfully excited by the slightest application of the finger to the face; even when the spoon came in contact with the lips there was a catch in the respiration, denoting, I presume, an affection of the recurrent nerve; the pupils became dilated; tongue more thickly coated. There was a continual desire to be walking about, evidently showing that the lungs then were not much oppressed. On the third day the little sufferer talked almost incessantly, often incoherently, but there was little tendency to violence or vicious impulse. The hydrophobic saliva, thick and tenacious, began to accumulate, and, when not got rid of by spitting, occasional vomiting took place, which afforded relief for a brief period. He, however, gradually got weaker, and unable to eject it, sinking from apnœa at 4 A.M. on the fourth day after the characteristic symptom developed itself.

The other case, to which I was called on the following day, was in a little girl, Alice Mary M——, aged five years, bitten at the same time in various parts of the head and face. The symptoms and treatment were nearly identical; but on the third day, at 2 P.M., there was for a short time some violence, controlled, however, entirely by the chloral hydrate, the administration of which had been rather neglected. During this period the poor little creature screamed loudly, requiring some restraint, and saying her parents were killing her. Saliva then began to collect, and was either ejected or ran out of the corner of her mouth. A period of perfect calm then came on, and continued until her death, in my presence, at 7 P.M. the same evening, sinking apparently more from asthenia than apnœa.

The history of both these painful cases, pointing, as it forcibly does, to an affection of the central and spinal nerves, the brain, and especially the medulla oblongata, makes it quite clear to my mind (and I devoted much time and attention to them) that the agonising sufferings of the subjects of this horrible disease were considerably alleviated by the means employed; and, although unsuccessful in warding off a fatal result, it was satisfactory to find that the friends of the poor little sufferers fully appreciated the beneficial effects of the remedy used.

Crewle Hall, Doncaster, May, 1871.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

A CASE OF GOUTY GRANULAR KIDNEYS AND IRRUPTIVE PNEUMONIA; FATAL BY ACUTE ŒDEMA OF THE LARYNX AND LUNGS.

(Under the care of Dr. MOXON.)

IN the following case a series of sequences led up to a rather sudden illness and death. Post-mortem evidence first revealed the fact that gout lay at the foundation of all the mischief. The patient was a middle-aged man, who was admitted for albuminuria. The amount of urine was more than normal; its gravity 1010. There was no dropsy, or only slight puffiness. Very soon after admission, and while the clinical clerk was taking a report of the case, the man fell into a convulsion, and continued until his death in a state of partial convulsion with intervals of complete coma. He was bled to thirty-six ounces without relief.

Upon inspection, the larynx, trachea, and bronchia showed intense acute inflammation. The mucous membrane was suppurating, a yellow lymph or pus lying in the mucous and submucous tissues, so as to give the membrane a very curious and unusual appearance, it being minutely mottled with yellowish patches on a dark-purple ground; yet no false membrane lay upon the surface, which was coated only with glairy mucus. The larynx was œdematous to such an extent as to close its opening. Both lungs were excessively loaded with serum, and at some points in each were small, dark, blood-coloured consolidations.

All these conditions make up an intense acute œdema of the lungs. The interstitial bronchitis is rare and remarkable; but such acute œdema of the lungs and larynx is, Dr. Moxon says, not infrequent in Bright's disease, and is apt to escape observation, especially when general dropsy lends the supposition that the œdema may be only a part of that condition. If the patient survive the attack of œdema many hours, pneumonia develops; but usually death occurs earlier, and often with convulsions. This condition is almost limited to Bright's disease; and many cases of death by convulsion in that disease are caused by this kind of attack. The accompanying convulsion arises through the predisposition which uræmia creates, and recalls the attack of convulsions that often usher in pneumonia in infancy, which, like Bright's disease, predisposes to convul-

sion. So far the state of the lung was of acute, and probably sudden, development; but besides this, and evidently long antecedent to it, there were patches of circumscribed induration seated in the lower lobe, and mostly deep in the lung. Also upon the pleura were several round contracted fibrous patches. Dr. Moxon calls this condition *irruptive pneumonia*, because he regards the patches of inflammation thus circumscribed and having a circular outline, as corresponding in their nature to cutaneous eruptions, and thinks that they are best understood from analogy with specific forms of cutaneous eruption. The lung, he urges, is a surface intricately complicated and infolded. An eruption upon this pulmonary surface will present the appearance to the naked eye of a knot, or mass, developed in the lung tissue. Such a patch of old grey induration may be viewed as a misplaced patch of gouty psoriasis. There is no reason to think that the limitations of area and depth, or the limitations in duration and destructiveness, which are observed in chronic eruptions in the skin are peculiar to the skin; it is surely highly probable that similar specific limitations in character and course govern the changes in the viscera as well. Whatever urticaria is on the skin, it is easily imaginable that urticaria may occur in or on the brain. We are too apt to consider everything that appears in the viscera as simply, coarsely, generically, inflammation; whereas the word "inflammation" is scarcely used in reference to the skin, so much are its inflammatory processes observed to differ from each other. Dr. Moxon believes that *chronic gouty psoriasis of the lung* would express more of the nature of this lung disease than such a term as grey induration. It will naturally be replied that much of the variety that is observed in skin eruptions depends on the complex structure of the skin, which allows of one ailment selecting hair-roots, another sebaceous glands, &c. But Dr. Moxon contends that no structural facts will explain the difference between erythema, eczema, psoriasis, and herpes, or the limitation to certain patterns of distribution and form in the varieties of each of these kinds of eruption. It cannot, therefore, be that, while chronic action of the inflammatory kind is so multiform on the skin, it is all mere general "inflammation" in the inward parts. He had seen several cases of circumscribed patches of chronic pneumonia both in gout and syphilis, but these cases are not usually seen post mortem until the irruption has become old and inveterate, so that its diagnostic features are lost; and it is well known that chronic cutaneous diseases in time become by inveteracy indistinguishable.

The case in question showed a good example of moderate gouty wasting of the cortex of the kidney. The great toe and knee-joints had urate-of-soda crystals on the cartilage.

KING'S COLLEGE HOSPITAL.

OPERATIONS BY SIR WILLIAM FERGUSSON.

Removal of a small Tumour, of doubtful origin, from the Upper Jaw.—At first it was uncertain what were the contents of this tumour which projected between the gum and the cheek, and whether it was superficial in regard to its relation to the bone, or an outgrowth projecting from the interior of the antrum. On being punctured, it emitted some glairy fluid and collapsed. Sir William Fergusson pointed out, as interesting, that though the cyst had been enclosed anteriorly by soft tissues only, as shown by the absence of all sensation of crackling when it collapsed under his finger, it had produced a very distinct depression in the anterior wall of the antrum.

Iliac Abscess and Disease of the Hip.—The patient appeared to be the subject of advanced hip disease, and presented an extensive fistulous opening immediately above and parallel to the crural arch. After dividing the femur below the trochanter major and exploring for dead bone in the iliac fossa, Sir Wm. Fergusson proceeded to consider the relation which the iliac and cotyloid disease had held to each other. He stated that the patient had been admitted with an iliac abscess, to which alone treatment was for a time directed. Afterwards, however, a marked decline in his health was observed, and a little later the head of the femur passed out of the socket. He then concluded that the boy had all along been suffering from hip disease, which had been overlooked while attention was being paid to the iliac abscess, of which it was the cause. But when he came to operate he had been astonished at the comparatively healthy condition of the head of the femur, and he found in the cotyloid cavity that which explained the real cause of the disease—namely, a considerable quantity of pulpy matter, which he took to be the softened round ligament and synovial membrane. He now concluded that the disease had commenced with iliac abscess, to which the hip disease had been secondary; and that the disorganisation and consequent swelling of the round ligament and synovial membrane had, without doing, comparatively speaking, serious damage to the head of the femur, lifted it out of its socket, much as mushrooms have been known to raise a paving-stone from its bed.

Sir Wm. Fergusson also removed, by the lateral incision, a stone from the bladder of a middle-aged man.

ROYAL FREE HOSPITAL.

OLD IRREDUCIBLE INGUINAL HERNIA STRANGULATED BY THE PROTRUSION OF A RECENT HERNIA; INCARCERATION OF THE LATTER; HERNIOTOMY EXTERNAL TO SECOND SAC; RECOVERY, WITH RADICAL CURE.

(Under the care of Mr. JOHN D. HILL.)

WILLIAM J——, aged fifty-nine, was admitted with vomiting, constipation, colicky pains in abdomen, and a tumour in the left groin. He stated that he had suffered for a year and a half from a rupture on the left side, which had never disappeared whilst he was in the recumbent posture. He had never worn a truss. Thirty hours previously, while he was wheeling a truck, he felt something suddenly yield in his groin. The tumour immediately became larger, and was followed by the above-named symptoms.

The tumour was of about the size of a hen's egg, and seemed to consist of two parts—a superficial, irregular, nodulated mass, and an ill-defined bag of fluid. There was a sense of very indistinct fluctuation, and a questionable impulse on coughing. The tumour was very tender on pressure, partly from its having been well manipulated before admission.

The patient was thirsty, and presented a quick weak pulse, hot skin, feeble heart action, and cold surface of body. It was decided to perform an exploratory operation. An incision two inches and a half in length was carried from the apex of the tumour towards its lower border through the skin and fat, and six or seven several layers of fascia were respectively divided. The thickened fascia spermatica interna then came to view, and was divided, and the sac exposed. The conjoined tendon was then notched, and an unsuccessful attempt was made to reduce the hernia. The impediment appeared to exist in the sac. On this being opened, a mass of claret-coloured omentum, which was adherent to the sac in every direction, so as to obliterate all communication with the abdominal cavity, came into view. As fluctuation and gurgling were perceived behind this mass, Mr. Hill divided the omentum on a director, in several layers, until he came upon a second sac. By using the taxis gently he found that no impression was made upon the hernia behind, partly on account of the constriction at the neck of the sac, and partly because of the quantity of effused fluid. He therefore further incised the conjoined tendon, and was able firstly to reduce the fluid contents, and afterwards the intestine, without opening the sac. The wound was closed in the usual way.

One grain of the extract of opium was given every four hours for the first three days; and a liquid diet of beef-tea, milk, eggs, and port wine.

A good deal of suppuration followed, attended with fever and thirst. Indeed, from the nature and amount of the discharge, it was thought probable that a portion of the congested omentum was cast off by sloughing. The bowels acted on the seventh day after operation, without the aid of either aperients or enemata. Tonics and solid food were then ordered, and the patient recovered without a bad symptom. The cicatrix became firmly adherent to the sac, and to all appearance incorporated with all its coverings; there remained no impulse on coughing, but the cicatrix receded with the abdominal muscles during that act: in fact, the hernia has been radically cured.

Mr. Hill laid stress on the importance of proceeding at once to herniotomy in cases presenting symptoms of strangulation, when the ordinary accessory means have been tried unsuccessfully; and added that, in cases where the tumour is of an obscure nature, it is far better to explore by incisions than to leave the case to chance, the more so as herniotomy without the sac is a simple operation. The case in question showed how necessary it is carefully to examine every step in these operations, since it seldom happens that two cases are exactly alike, and some important and dangerous anatomical deviation or abnormality may arise in the practice of the most experienced surgeon, if any set rule be adopted as to the *modus operandi*.

EVELINA HOSPITAL FOR SICK CHILDREN.

A CASE OF EMPYEMA, TREATED BY PARACENTESIS AND SUBAQUEOUS DRAINAGE.

(Under the care of Dr. W. S. PLAYFAIR.)

For the notes of this case we are indebted to Mr. Clement Godson, lately medical registrar to the hospital.

Thirty-eight days before admission the patient had caught cold during the night, and awoke with pain in the side. On admission, the left chest measured three-quarters of an inch more than the right, was universally dull, and presented no intercostal depressions; the heart beat about half an inch below the right nipple; the temperature was very variable. All the other physical signs combined to indicate that the pleura contained fluid.

A few days after admission it was found advisable to relieve the chest by paracentesis, and about a pint and a half of purulent fluid was evacuated, to the manifest relief of the patient. In eleven days more the operation became again urgently necessary, and on this occasion the fluid was conveyed by means of a piece of india-rubber tubing, which entered the cavity of the pleura and was fixed to the chest by means of wire and strapping, into a bottle partly filled with water, through the cork of which it passed; the extremity of the tube fell below the level of the water. A pint and three-quarters came away on this occasion. During each of the three succeeding days about two ounces of pus were discharged into the bottle, for some more days about an ounce, then for a few days half an ounce, and so on, until on the thirty-second day the discharge became so slight that the apparatus was removed, and a small strip of lint was introduced into the wound. In a few days more this also was discontinued, and the fistula was allowed to close. On the forty-second day the wound had closed and the child was in good health. In a few days more she was sent into the country. When she was discharged there was some slight contraction of the chest-wall below the clavicle, but the heart had resumed its natural position, and normal resonance and good respiratory murmur had been everywhere established.

THE

ADDRESS IN MEDICINE

DELIVERED BEFORE THE

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AT EDINBURGH,

BY GEORGE JOHNSON, M.D., F.R.C.P.,

PROFESSOR OF MEDICINE IN KING'S COLLEGE, PHYSICIAN TO KING'S COLLEGE HOSPITAL, ETC.

NATURE AND ART IN THE CURE OF DISEASE.

MANY of those whom I have now the honour to address will remember how great an interest was excited when, about fourteen years ago, the late Sir John Forbes published his book on "Nature and Art in the Treatment of Disease." The author of that little volume, in clear and vigorous language, with pitiless logic, characteristic truthfulness, and fearless candour, pointed out the evils resulting from what he calls the over-active perturbative treatment and the mischievous polypharmacy which were then prevalent. Sir John Forbes lamented that in his day a purely expectant treatment of disease was rarely practised, except under other colours and under other names; and he referred to the results of homœopathic treatment, which he, with reason, looked upon as simply inert, in proof of the proposition that "the power of Nature to cure disease is infinitely greater than is generally believed by the great body of medical practitioners and by the public. So great, indeed, is this power," he goes on to remark, "and so universally operative, that it is a simple statement of facts to say that, of all diseases that are curable and cured, the vast majority are cured by Nature independently of art; and of the number of diseases that, according to our present mode of viewing things, may be fairly said to be curable by art, the far larger proportion may be justly set down as cured by Nature and art conjointly." He elsewhere remarks that cases recorded by young practitioners in the medical journals afford additional evidence of a yet stronger kind, by showing, not simply the power of Nature to overcome natural disease, but to overcome this and the artificial disease superadded by what he very unpolitely calls "the energetic ignorance of the practitioner."

To the same effect, many years before, Lord Byron, when half-dead of a fever in Greece, wrote what he intended to be his own epitaph:—

> "Youth, Nature, and relenting Jove,
> To keep my lamp in strongly strove;
> But Romanelli was so stout,
> He beat all three, and *blew* it out."

After all, however, he recovered on that occasion, and he adds that "Nature and Jove, being piqued at my doubts, did, in fact, at last beat Romanelli; and here I am, well, but weakly."

Since the publication of Sir John Forbes's book, and partly, no doubt, in consequence of that publication, our views as to disease and its treatment have undergone a very great change. A purely expectant treatment is now as common as then it was rare. It is now fashionable and orthodox to trust to the curative powers of Nature, and to doubt the therapeutic power of art. The pendulum has swung from one extreme to the other. At that time it was said, "that according to the vulgar notion, the function of the physician consists in little else than the prescription or administration of drugs, and the function of the patient in little else than swallowing them." Now, on the contrary, that which was once said satirically, has come to be an almost accepted rule of practice—namely, that "the chief business of the physician is to amuse the patient while Nature performs the cure."

Now it is a very noteworthy fact that, simultaneously and side by side with this firm belief in the almost all-sufficiency of Nature and the impotence of art, there notoriously exists an extreme unwillingness to admit that any phenomena of disease can rightly be considered as having a conservative or curative tendency. The writer of an article "On the Pathology of the Microscopic Arteries," in the April number of the *British and Foreign Medico-Chirurgical Review*, had good reason for the statement which he there makes, that to speak of pathological processes as curative efforts of Nature, "is a mode of looking at the phenomena of disease always suspiciously cross-examined at the present day." This statement, however, suggests the inquiry whether a suspicious cross-examination is not uncalled for and out of place when the object is to arrive at truth, and not merely to gain a verdict. For the discovery and appreciation of scientific truth, the judicial impartiality of the bench is certainly more effective than the zealous and sometimes not over-scrupulous partisanship of the bar.

Surely there is *à priori* good reason to believe that in the curative processes of Nature there is an orderly method of procedure, of which, by a diligent search, we may gain some useful knowledge. That marvellous reparative power which cures a fever or an inflamed lung as thoroughly as it heals a wound or mends a broken bone, must certainly work after a definite plan in each class of cases. The characteristic manner in which, during the progress of acute febrile and inflammatory diseases, the temperature rises, fluctuates,

and finally falls, within a period which, for each disease, has a more or less exact limit, is one amongst other indications of such a definite plan and order. And as conservative surgery has been much advanced by a careful study of Nature's method of healing wounds and repairing injuries, so it can scarcely be doubted that a thorough analysis of the more obscure phenomena of internal diseases, and an investigation of their physiological sequence and relationship, may afford us great assistance in our endeavour to conduct our patients safely through the storm of a dangerous sickness. Indeed, I hope to carry you with me in my attempt to show that much knowledge of this kind is already available and ready for daily use.

We are all too apt to forget that disease is a natural, although an abnormal condition of the body; that pathology is, in fact, a department of physiology, and that the phenomena of disease result from the action of the normal structures and forces only modified by morbid conditions. To take an extreme case, the time, perhaps, is not far distant when we may be able to give a physiological interpretation of even that destructive deviation from the normal processes of nutrition which results in the disease recognised as cancer. Meanwhile much aid to scientific pathology and practical medicine is to be expected from the improved teaching of physiology, to which so much attention is now being given. Unquestionably there is a great call for improved and extended physiological training, for there are manifest signs of a lamentable ignorance of the subject, not only amongst otherwise highly educated laymen, but amongst medical writers who publicly discuss physiological questions, and who therefore subject themselves to public criticism. You will not have forgotten that a very influential newspaper lately endeavoured to excite the sympathy of its readers and to bring discredit upon an eminent professor, by commenting on the supposed sufferings of a decapitated frog, whose automatic movements were assumed to be the result of volition, and to be indicative of pain. Then, if anyone desires to test the physiological acquirements of certain writers on pathology, let him study, as I have done, the copious literature of cholera. He will find, amongst other anomalies, that one writer of great eminence considers that he has sufficiently explained the collapse of cholera when he pronounces it to be the result of "paralysis of the sympathetic nerve." Another writer on cholera, having satisfied himself by experiment that the disease is communicated by the poisonous discharges from the alimentary canal, maintains that the poison does not become absorbed so as to enter the circulation, but that it has a purely local action upon the epithelial lining of the bowel.

Now, the rapid absorption and diffusion of all known poisons as an essential condition of their operation is one of the best established of physiological doctrines. The interesting observations of Dr. Bence Jones demonstrated, not only the rapidity of absorption from the alimentary canal, but also the rapid diffusion of the absorbed materials out of the vessels even into the non-vascular tissues. These physiological doctrines, as well as the numerous facts which go to prove the absorption of the cholera poison, are ignored by the author of the theory to which I have referred; and if we accept his teaching, we are required to believe that in the case of the cholera poison a general law of physiology is suspended.

I propose now to refer to some very obvious and well-known phenomena as examples of morbid processes having a conservative or curative tendency. Let us take, for instance, the case of a patient who is jaundiced in consequence of mechanical obstruction of the duct by a gall-stone. His urine is charged with bile, the result of a vicarious excretion of bile products by the kidneys. It will scarcely be denied that the elimination of bile through the urinary channels is, on the whole, a wholesome conservative process, tending, as it does, to free the blood from impurities, the retention of which might be injurious, and even fatal. Yet this vicarious excretion is not effected without some functional disturbance, and even temporary structural change in the kidney. An examination of bilious urine often discovers in it desquamated renal epithelium, tube casts, and sometimes albumen—pathological conditions which quickly pass away when the bile, resuming its natural course, ceases to be excreted by the kidneys.

Again, in a case of diabetes there is an abundant secretion of saccharine urine. Now, whatever may be the primary seat and essential cause of diabetes, it is certain that the free elimination of the excess of sugar by the kidneys is essentially a beneficial and life-preserving process. Yet this continued secretion of sugar not unfrequently induces structural changes which ultimately lead to a fatal result. The persistent elimination of sugar by the kidneys has the effect of changing the structure and the vital properties of their secreting cells, so that, in adapting themselves, as it were, for the secretion of sugar, they gradually become unfitted for the discharge of their own proper function—namely, the secretion of urine. The renal gland-cells at length become opaque, and are found to contain a large amount of finely granular material with oily particles. The circulation through the kidney becomes impeded, the gland is congested, its secretion is albuminous, and suppression of urine is the immediate cause of death in a large proportion of cases of diabetes.

I believe that the familiar facts to which I have here briefly referred afford a good illustration of a principle which admits of a very extensive application to the interpretation of morbid phenomena. A large number of diseases are caused by, or at any rate associated with, some form of blood-poisoning. The morbid poisons and their products are eliminated through various excretory channels, more especially through the kidneys, the liver, the skin, the lungs, and the mucous membrane of the alimentary canal. In many instances the elimination of the morbid poison causes much functional disturbance and structural change in the excretory channels through which the poison escapes; and these structural changes constitute the most striking outward signs and diagnostic marks of the diseases with which they are associated. Thus we have the cutaneous eruptions of the acute exanthemata, the gastro-intestinal symptoms of cholera, the bowel disease of dysentery and enteric fever, the hepatic disease which results from excess of alcohol or from the influence of malarious poisons, the renal disease, which may also be caused by an excess of alcohol, by the poison of scarlet fever, and by various other morbid poisons which I need not now stop to particularise.

Here let me say that I am perfectly well aware that by a certain class of pathologists the doctrine of the elimination of morbid poisons is ridiculed as a vestige of a bygone, unenlightened age, well enough adapted to please the fancy of old women and ill-educated laymen, but quite unworthy the acceptance of scientific physicians. One of this very advanced school lately intimated to me privately that, as a supporter of this exploded notion, he looked upon me as the priest of a decaying faith. Now it is a remarkable fact that the opponents of the doctrine in question not unfrequently render it ridiculous by misrepresenting it; the misrepresentation being, of course, unintentional and apparently an unconscious result of confusion of ideas in the minds of the critics. Thus, quite recently in one of the medical journals, an eminent provincial physician asks what we mean by the term "disease"; and he replies by saying: "In old times people used to think that a disease was some actual entity or thing which had got into the body in some way and was there lying hidden and secreted, and was to be cast out. We know that there are a few instances of this kind of thing; for example, we know that some disorders depend upon the presence of a tapeworm in the intestines, and that to cure them we must hunt the worm out of the body. This idea, which we know to be true only in a few specific instances, was at one time general. The germ of this idea still runs through a great many of our conceptions of the nature of disease. This is more particularly the case in the pathological conceptions of ill-educated laymen; but many traces of it are still to be found amongst ourselves also."

I venture to suggest that the writer of the passage which I have here quoted confounds, as others equally eminent have done before, the idea of disease with that of a morbific cause. If anyone maintains, or ever did maintain, that *disease* is an entity, having an existence apart from the living body, I am not here to defend so manifest an absurdity. I apprehend that what we all understand by disease is an abnormal condition of the living body. The causes of disease are almost infinitely various. Some diseases have their origin in purely mental, emotional, or nervous influences, but the cause of many diseases is as certainly, if not as obviously, a separate entity, as the ovum of a tapeworm. For instance, the disease which we call lead-colic is the

pain with constipation experienced by a man who has been poisoned by lead. The colic, of course, can have no existence apart from the sufferer, but the metallic poison which causes the colic was introduced from without, and may be again ejected from the system. We know that small-pox and scarlet fever can exist only as phenomena of living bodies, but the cause of each of these diseases is a material and portable poison, which, being thrown off from the bodies of the sick, conveys the disease to the healthy. The theory of contagion as generally accepted, and the practice of disinfection as commonly adopted, both imply a belief in the elimination of morbid poisons. This doctrine of the elimination of morbid poisons is of course quite consistent with a belief that in part they may be decomposed and destroyed within the system, although we can have no proof of the actual occurrence of this destructive process.

I almost feel that I owe you an apology for occupying your time by insisting upon such obvious, elementary truths. It is strange that at a time when so much discussion is going on as to the nature of morbid poisons, when germs and dust and fungi, their nature and origin, and operation upon the living body, and the best mode of preventing or neutralising their effects, form the subjects of fierce controversy, there should occasionally be heard a confused utterance which seems to imply that the whole controversy is utterly unpractical and unmeaning; that while a tapeworm is an undoubted fact, morbid poisons are the phantom products of a disordered brain. As an illustration of this kind of unreasonable scepticism, I may remark that a recent writer on cholera in India, Mr. Macnamara, denies the existence of a blood-poison in that disease, because Dr. Thudichum failed to obtain chemical evidence of such a poison. As if Dr. Thudichum had chemial proof of the existence of any of the morbid poisons of whose reality and destructive activity the evidence, other than chemical, is only too conclusive.

And now to return to the subject of curative efforts of nature, and the conservative tendency of certain morbid processes. There are few diseases which afford more striking illustrations of the principle in question than the various forms of Bright's disease, when traced through all their stages, from their origin to their termination. Excluding from consideration those cases of albuminuria which are caused by a mechanical impediment to the circulation, the result, usually, of cardiac or pulmonary disease, it may be held as a doctrine generally true that the primary cause of Bright's disease in all its forms is a morbid condition of blood, and that the structural changes which the kidney undergoes are the result of a conservative effort to excrete noxious materials from the circulation. In cases of transient blood-poisoning, scarlet fever for example, the structural changes in the kidney and the functional disturbance may be only temporary, and the recovery complete. But in other instances, as, for example, cases of chronic alcoholism—a very frequent exciting cause of Bright's disease,—the continued passage of noxious products through the secreting structures of the kidney gradually destroys the tissues, and the gland either wastes and contracts, or becomes so structurally changed as to be unsuited for the discharge of its functions. There is then a secondary blood contamination, a result of retained urinary excreta, and this uræmic condition may, in a variety of ways, bring about a fatal result. In illustration of our present subject, it may be observed that when the renal disease has reached an advanced stage, life is often prolonged for a time by the vicarious elimination of urinary excreta through the mucous membrane of the alimentary canal. It is probable, too, that the dropsical symptoms which often complicate renal disease are the result of a conservative effort to free the blood from an excess of water, whose retention within the vessels would be more detrimental than its accumulation in the subcutaneous tissue and the serous cavities. .....

[In further illustration of conservative morbid processes, Dr. Johnson directed attention to certain changes of almost constant occurrence which are found in the heart, and in the minute arteries, after death from chronic Bright's disease; and dilated upon the doctrine. He then proceeded.]

In these days of specialism, when the tendency is to dissever the various organs of the body, and to forget their physiological relationship to each other, it is interesting and instructive to find that the deterioration of the blood which results from the degeneration of one organ—the kidney—may induce hypertrophy not only of the walls of the heart, but also of the walls of the minute arteries in every tissue throughout the system. A good illustration this of the very ancient doctrine that, "if one member suffer, all the members suffer with it."

Time will not permit me to comment upon the various symptoms of Bright's disease which receive their explanation from the anatomical changes which I have described. There is, however, one phenomenon to which I must make a passing reference. A full, hard, resisting radial pulse, with increased arterial tension, as indicated by the sphygmograph, is commonly observed in cases of chronic Bright's disease. The explanation is obvious, by reference to the two antagonistic forces, that of the strong left ventricle, and that of the equally strong resisting arterioles. So that, when the history of a case and the chemical and microscopical characters of the urine are insufficient to determine the question whether the renal disease is chronic or of recent origin, the physical signs of hypertrophy of the left ventricle, with increased arterial tension, afford important confirmatory evidence.

[Dr. Johnson next defended the teleological argument as applied to the structure and functions of the living body, whether in health or in disease. He then continued.]

During the time which remains to me to-day, my purpose will be to show that, as practitioners of medicine, we have something more to do than to watch the phenomena of disease as passive spectators, and that in our endeavour to prevent, to mitigate, and to cure disease, we have a better guide than mere empiricism.

Obviously, one of the most essential conditions for the successful treatment of disease is an exact diagnosis. If diseases essentially different are confounded together, it is impossible to arrive at any trustworthy conclusion as to the effect of particular remedies or plans of treatment. Nor does it suffice for successful treatment that a disease be correctly named and referred to its right place in a nosological system. I need only refer to the group of cases which are designated epilepsy to illustrate this proposition. There is reason to believe that the immediate cause of an epileptic convulsion is in all cases identical—namely, a sudden and extreme anæmia of the brain; but the remote and exciting causes of this cerebral anæmia are numerous and very diverse. It may be a result of failure of the general circulation, consequent upon profuse and rapid hæmorrhage, or a plug of fibrine (embolism or thrombosis) in the pulmonary artery; or the pulmonary, and consequently the systemic, circulation may be rapidly arrested by one of the various forms of apnœa, or by the accidental admission of atmospheric air into the veins during the performance of a surgical operation at the root of the neck or in the axilla. But in most cases of epileptic convulsion, the arrest of the circulation and the cerebral anæmia are probably due to a sudden and extreme contraction of the minute intracranial arteries. The exciting causes of this arterial contraction are very various. It may be the result of a purely nervous or reflex influence acting, through the vaso-motor nerves, upon the cerebral vessels. Examples of this form of epileptic convulsion are afforded by cases in which the determining cause is emotional excitement or mental anxiety, syphilitic or tuberculous inflammation of the brain or its membranes, painful dentition, the irritation of intestinal worms. In another class of cases blood-poisoning is the immediate cause of the arterial contraction. To this group belong cases of uræmic convulsions—convulsions the result of alcoholism, and the convulsions which sometimes occur during the initiatory fever of the acute exanthemata. If the treatment of epileptic convulsions is to be successful, or even harmless, we must do something more than give the disease a name, and prescribe bromide of potassium, valuable as that remedy is in many cases of this terrible disease.

We are sometimes told that our chief duty as practitioners is to treat symptoms, and to leave pathological theories to those who have nothing better to occupy their time and attention. A patient consults us for aphonia; shall we prescribe for this symptom without looking into the larynx to ascertain its cause?.....

Again, when it is said that we are to treat symptoms, is it meant that we are to make it a rule of practice to endeavour to repress all the symptoms of disease without re-

ference to their origin, their physiological significance, or their probable conservative tendency? Such a rule would lead to the repression of the eruption of scarlet fever and small-pox by external cold, to the abrupt arrest of choleraic discharges by opium, and to the weakening of a strongly pulsating hypertrophied heart associated with valvular disease by low diet and depletion—modes of treatment condemned alike by pathological science and by the results of experience.

In estimating the results of treatment, the ultimate appeal must obviously be to experience. Experience, however, has notoriously proved, in many instances, a fallacious guide: *experientia fallax* is a maxim which we shall all do well to keep continually in mind.

But of all the delusive guides in practice a false theory of disease is the most to be dreaded. It was an erroneous theory that suggested the antiphlogistic treatment of delirium tremens and the narcotic and alcoholic treatment of cholera; and theory alone prevented the more speedy discovery and rectification of these practical errors.

A knowledge of the *causes* of disease, and of their *modus operandi* in the production of morbid phenomena, may be made practically useful in many and various ways. The evidence obtained within the last few years of the manner in which cholera and enteric fever spread through the contamination of the air and drinking-water by the intestinal discharges has greatly increased our power of preventing these destructive diseases. The ascertained influence of comparative dryness of soil and of atmosphere, resulting from improved drainage, in diminishing the mortality from phthisis in various parts of America and in this country, forms another important contribution to practical and preventive medicine. .....

There is a numerous and important class of cases in which suppressed action of the skin by cold or by some unknown atmospheric influence is the exciting cause of disease in internal organs: for example, cases of acute renal dropsy, whether occurring during the progress of scarlet fever or unconnected with that disease; cases of catarrh and bronchitis; cases of acute pneumonia; and some cases of acute rheumatism. Now there is a principle of practice common to all these cases, which is this—that if at the very commencement of the disease a free action of the skin can be promoted, the malady may often be cut short, or, if not entirely and promptly arrested, it will be greatly mitigated. It is notorious that an ordinary catarrh may almost certainly be cured by free diaphoresis *at the very commencement* of the attack. I have myself gone into a hot-air bath suffering from headache, pain in the limbs, and other indications of a severe incipient catarrh, which, if allowed to run its course, would probably continue for a period of from one to two or three weeks; and in the course of half an hour the symptoms have been entirely removed by the action of the bath. The same treatment by hot-air or blanket baths is certainly very efficacious *in the early stages* of acute renal dropsy, more especially when cold has been the exciting cause of the disease. The object of the diaphoretic treatment in these cases is not, as some writers appear to imagine, to sweat urine through the skin, but, by diverting a large amount of blood to the surface, to lessen the congestion of the kidney—as dry cupping over the loins does in a less degree,—and thus to increase the secretion of urine. The objection which has been made to this sweating practice—that it tends to waste a portion of the water which is required to wash morbid products from the uriniferous tubes—affords a good illustration of the insufficiency of mere physics to explain physiological phenomena.

[In connexion with this diaphoretic practice, Dr. Johnson referred to the treatment of catarrhal pneumonia, and stated that, by treatment promptly applied during the febrile prepneumonic stage, the amount of subsequent exudation may be greatly lessened. The treatment suggested by theory and approved by experience consists in the prompt restoration of the suppressed cutaneous secretion, by hot air or water, or wet sheet and blanket baths, an emetic of antimony or ipecacuanha when there is nausea without vomiting, and a calomel and colocynth pill, followed by a saline purgative.]

It remains for me now to sum up in a few sentences the main points which I have had the privilege to bring before you.

I have suggested that a belief in the power of Nature to cure all curable diseases is inconsistent with a disbelief in the existence of morbid processes having a conservative or curative tendency. I have indicated various pathological phenomena, the conservative tendency of which appears to me indisputable; and I have endeavoured to show that, by a careful study of the functional and structural changes which result from disease, we may obtain most valuable indications for treatment—learning thereby both to do that which may aid Nature, and to avoid such means as may tend to thwart and hinder the natural curative processes.

Again, I have intimated that it is difficult, and, as it seems to me, impossible, to reconcile a disbelief in the elimination of morbid poisons with a belief in the spread of disease by contagion. Confirmatory evidence as to the elimination of morbid poisons is afforded by the disastrous results of repressive methods of treatment. To take all possible precautions to exclude the cholera poison from the system, and then, when once it has gained an entrance, to endeavour to retain it there by opiates and astringents, are practical modes of procedure utterly inconsistent with each other; unless, indeed, the object of this repressive treatment be to sacrifice the individual for the public good—to prevent the patient, at the peril of his own life, from scattering the seeds of disease and death amongst the community.

I believe that the success of our attempts to cure and to prevent disease depends mainly upon an exact diagnosis and discrimination of the various forms and shades and stages of disease; upon a correct interpretation of pathological processes and symptoms; a careful avoidance of erroneous and misleading theories; and, lastly, upon a prompt recognition of the exciting causes of disease, some of which may be avoided, some removed, while the influence of others may be in a greater or less degree counteracted by the timely employment of suitable means.

BRITISH ASSOCIATION FOR ADVANCEMENT OF SCIENCE.

MEETING AT EDINBURGH, AUG. 2ND TO 9TH INCLUSIVE.

AFTER an interval of many years, the Association was again hospitably received in the modern Athens; and, what is a rare thing at such gatherings, all the various Sections were accommodated in that noble building, the University, which greatly added to the comfort and convenience of the members. This occurred also in 1859 at Aberdeen, when Marischal College, a fine modern building, was equally commodious. As might be expected in such a renowned school as that of Edinburgh, many subjects interesting to the physiologist and medical philosopher were brought forward, of which we shall endeavour to give a brief analysis.

The Section of Biology was subdivided into three departments — Anatomy and Physiology, Anthropology, and Zoology and Botany. Professor Allen Thomson, of Glasgow, delivered an address before the first, and Professor Turner, of Edinburgh, before the second. The latter gentleman stated that this was the first time in Scotland that an anthropological department had existed. In the course of his remarks he asked the signification of the term "anthropology" among men of science. Mr. Wallace had defined it to be the science which contemplates man under all his varied aspects (as an animal and as a moral and intellectual being), in his relations to lower organisms, to his fellow-men, and to the universe. "It is obvious," Professor Turner remarked, "that a science thus defined is most comprehensive in its scope; that it embraces the nature and constitution of man, physically, psychically, and morally; the differences and resemblances between man and other organisms; his habits and language; his history, past, present, and future." He then traced the history of this department, its struggle for existence, and the position it was likely to hold for the future.

Dr. B. W. RICHARDSON read the ninth of a series of reports "On the Physiological Action of Organic Chemical Compounds." The series was commenced at Newcastle in 1863. The substances described in the present report were

chloral hydrate, anhydrous chloral, metachloral, bromal hydrate, nitrite of amyl, nitrate of ethyl, sulpho-urea, and hydride of amyl, called briefly hydramyl. He considered the question of what was a dangerous, and what a fatal dose of chloral hydrate, fixing the maximum dose at 140 grains. He stated that, in instances where chloral hydrate was producing dangerous symptoms, threatening to be fatal, warmth, food, and artificial respiration were the great remedies; and he explained the dangers that were arising in the community from the practice of taking chloral hydrate as a narcotic luxury, like alcohol or opium. He strongly warned people against this practice, and stated that the *habitué* to this influence became a diseased person, and sometimes an unintentional suicide. Of nitrite of amyl the author mainly tried to show the action on the lungs; it caused paralysis of the bloodvessels, and produced congestion, and in the lungs changes were brought about analogous to some of those attending pulmonary consumption in the human subject. On the other hand, it produced a curative effect in certain diseases. The last substance named was chlor-hydramyl, a light, volatile fluid, intended to produce rapid insensibility to pain in short operations.—A brief discussion followed, in which Drs. Donkin, Marcet, Sharpey, and Brunton took part.

A Report of the Committee appointed to consider the subject of Physiological Experimentation, forwarded by Professor Rolleston, was then read. It was as follows:—1. No experiment which can be performed under the influence of an anæsthetic ought to be done without it. 2. No painful experiment is justifiable for the mere purpose of illustrating a law or fact already demonstrated. In other words, experimentation without the employment of anæsthetics is not a fitting exhibition for teaching purposes. 3. Whenever, for the investigation of new truth, it is necessary to make a painful experiment, every effort should be made to ensure success, in order that the suffering inflicted may not be wasted. For this reason no painful experiment should be performed by an unskilled person, with insufficient instruments and assistants, or in places not suitable to the purposes—that is to say, nowhere except in physiological and pathological laboratories, under proper regulations. 4. In a scientific preparation for veterinary practice operations ought not to be performed upon living animals for the mere purpose of obtaining greater comparative dexterity.

"On the Pressure of the Atmosphere as an Auxiliary Force in carrying on the Circulation of the Blood" was the subject of a short and partly experimental paper by Dr. A. BUCHANAN. "The Nutrition of the Muscular and Pulmonary Tissue in Health and in Phthisis, with Remarks on the Colloid Condition of Matter," formed another paper by Dr. MARCET.

In a paper on the "Rarer Raptorial Birds of Scotland," by Professor DUNS, the author showed that year by year they were becoming fewer in Scotland, and the farmer and gamekeeper would lose much when they succeeded in destroying all the hawks and owls.—Canon Tristram remarked that the destruction of raptorial birds had been very great in Northumberland, and one of the results of this was the grouse disease.

"Degeneration of Race in Britain" was the title of an interesting paper by Dr. BEDDOE, of Clifton. He gave a sketch of some of the probable causes of this by way of example; many others, he said, would occur to his hearers. He urged upon those who had the opportunity and leisure of doing so to direct their efforts to the collection of facts bearing upon the subject.—A lengthy discussion followed, in which Professor Turner (the Chairman), Mr. Picton, Dr. Kelburne King, Mr. Vivian, Mr. Sewell, and Professor Bell (St. Andrews) took part.

Professor TURNER made a communication "On the Placentation of the Cetacea." He confirmed the observations of previous anatomists, and his own now referred to the gravid uterus of one of the Kirkwall whales sent to him in a fresh condition. The fœtus was situated in the left horn. The surface of the mucous membrane was abundantly covered with a number of little recesses or crypts; the uterine glands lay parallel to the mucous surface, and sometimes he found them near these mucous crypts. He dissected some of these crypts, and in their submucous surface was a series of circular corpuscles, to which he gave a special name. The uterine glands were less vascular than the crypts. The chorion was covered with compound villi which were intended to fit into the crypts. The injected preparations illustrating this paper, preserved in spirit, were beautiful, and excited the admiration of the speakers, who were Professors Huxley, Sharpey, Carpenter, and Allen Thomson, Dr. Priestley, Dr. M'Alister, and others.

Professor STRUTHERS followed with a paper "On some Rudimentary Structures recently met with in the Dissection of the large Fin-Whale." It measured sixty-eight feet in length, and was found some thirty or forty miles from Aberdeen. It possessed a sixteenth pair of ribs, the position of which was remarkable for a rib to occupy in a mammalian animal, suggesting a sternal rather than a vertebral rib, and somewhat resembling the abnormal ribs of the crocodile. The muscles he spoke of as rudimentary structures, whose function was not distinct, but low.—Some remarks were offered by Professor Turner, Professor M'Alister, and Dr. Murie. The last said he was glad to find the observations he had made in 1867 confirmed by the researches of Professor Struthers.

Mr. B. T. LOWNE made some observations "On the Ciliated condition of the Inner Layer of the Blastoderm in the Ova of Birds, and in the Omphalo-mesenteric Vessels."—Prof. Sharpey and Dr. Carpenter considered his case not fully made out, and suggested further careful inquiry, with more positive proof.

Professor HUMPHREY (of Cambridge) read a paper "On the Caudal and Abdominal Muscles of the Cryptobranch." He gave a general description of these muscles, and drew the following inferences:—1. That the abdominal muscles are an extension and expansion of the caudal muscles. 2. That the several abdominal muscles are derived from one simple muscular sheet, which is segmented into planes by a difference in direction of the muscular fibres at different depths. 3. That the fibres of the external and internal oblique muscles are continued into those of the rectus, a gradual alteration in the fibres from an oblique to a straight direction being found as they approach the middle line. 4. That the ilium and the ribs are the result of ossification in the course of the intermuscular septa, and chiefly in those parts of their thickness which correspond with the plane of the internal oblique muscle.

Sir DUNCAN GIBB read a paper "On the Uses of the Uvula," which he said were not wholly understood. After giving its anatomy and relations, he mentioned some experiments upon a person who had lost the bones of the nose, permitting a view of the soft palate, from its nasal aspect, during deglutition. Two convex swellings, in the form of a double arch, were seen to be held in a state of firm tension by the uvular muscles pressing down the centre of the soft palate, at the same time that the end of the uvula was held firmly against the wall of the pharynx. The action of the uvula here as a compressor of the soft palate during deglutition, and the tip forming a *point d'appui* against the pharynx, were new facts of much interest. He then described its influence upon the voice when its character as an elevator or shortener was exerted, and the appearance and action of the uvula in singing the higher registers.

The foregoing was followed by an oral "Account of some Abnormalities of the Larynx," in which were described, by the aid of diagrams, an instance of congenital absence of both arytenoid cartilages, another of trefoil-shaped epiglottis, and two others of fissure of the cartilage.

Mr. C. W. PEACH read a paper, illustrated by specimens, "On the so-called Tailless Trout of Islay." The fish were sent to him by Mr. Colin Hay, of that place; and were taken in Lochmaorichen in Islay, which was about 1000 ft. above the level of the sea, and not above an acre in extent. It was so shallow that a man could wade through it. It had a strong bottom, with a few weeds; and, although surrounded by other lochs, these tailless trout were found only in it. The whole of them were "docked;" and Mr. Mackay, a keen sportsman, who had fished it often for thirty years, never caught one with a perfect tail. They were in excellent condition, and fed on the small crustaceans, which were abundant there. It was intended to obtain a further supply of the fish from the fry to the adult state; and also to transport some of the "docked" fish to another loch, and rear a stock from them to see whether they would all remain tailless. A skeleton exhibited was perfect in every respect, with the exception of the tail.—Dr. Grierson ob-

served that, in some streams coming from drifts, trout of the size exhibited frequently wanted their tails and fins, and sometimes the fish were blind.—Mr. Peach, however, remarked that the tail only in his trout was wanting, and the fish were not blind.

Prof. THISTLETON DYER read a paper "On So-called Mimicry in Plants," and he pointed out the broad distinction existing between the mimicry of animals and what is called by that name in the vegetable kingdom. In the first case the animal and what was mimicked were always found in close association. On the other hand, the plants in which a mimetic resemblance was observed were seldom found in the same neighbourhood. A striking resemblance in foliage would be found between a plant of the Leguminosæ and another of the Compositæ; as also between distinct varieties of ferns, though existing under entirely different conditions, and indigenous to widely separated portions of the globe, and in the leaves of several species of caducous forest trees. The cause he attributed to the action of similar chemical agents on the structure of plants, so that those growing on the arid soil of the sea-coast might, from deriving nourishment from similar substances, come to have a form similar to that of plants of a totally different species, whose chosen habitat was high sandy regions.—A brief discussion ensued, in which Prof. Lawson and Dr. Lankester took part.

In a communication upon "The Development of Fungi within the Thorax of Living Birds," by Dr. MURIE, he referred to the fact of lowly organised vegetable structures being not unfrequently found growing in animals and man, both internally and externally. In nearly all instances where vegetable organisms flourished within the living body, it was in organs where a certain amount of air had free access. It was more difficult, though, to account for the cases in which vegetable parasites arose in closed cavities. The instances he brought forward were a fungous-like growth in the abdomino-pleural membrane of a Kittiwake gull, a great white-crested cockatoo, and a rough-legged buzzard, specimens from which he described.—In the discussion which followed, Mr. Cooke and Professor Percival Wright questioned whether the vegetable structures spoken of by the author might not be algæ instead of fungoid bodies.—Dr. Bastian said the question calling for most consideration was how these vegetable forms came to be found in a place cut off entirely from communication with the atmosphere. Either these organisms must have been previously present in the blood in a latent state—their germs being so minute as to be undistinguishable—or they must have come into existence by spontaneous generation.

Papers "On the Action of Heat on Germ Life" and "On Protoplasmic Life" were read by Dr. CRACE CALVERT. In the first were described a series of experiments made for the purpose of determining the effect of heat on living organisms. He took solutions of albumen, gelatine, sugar, and hay, all full of microscopic life, and submitted them to various temperatures, and he found that it was only at 400° that life disappeared. He said, if there was such a thing as spontaneous generation, he could not understand why life should not have been reproduced in his tubes which had been heated up to 400°, when it was in all the others heated below that figure. He advised medical men to consider the temperature at which life was destroyed. In the second paper the general result of a series of experiments, chiefly upon water, went to show that life was produced if the fluid under examination was left exposed to the air for a very short period. If perfectly sweet eggs were covered with varnish they would keep for eighteen months, while, if not so covered, they would not keep as many weeks. If, he said, there was such a thing as spontaneous generation, why should not the egg covered with varnish decompose as soon as the other?—A discussion ensued, in which Dr. Nevins, Mr. Macknight, Sir Walter Eliot, and Dr. Bastian took part. The last ably refuted the conclusions drawn by the author from his experiments, and said the results of his own experiments, as well as those of others, he found it very difficult to reconcile with the presence of germs in the atmosphere.

A paper of some general interest "On Centenarian Longevity" was read by Sir DUNCAN GIBB, in which he gave the physical condition of four genuine examples he had himself seen. The great functions of life and special senses came under review. He mentioned one change especially antagonistic to extreme longevity, and a highly important one—viz., the predominance of the atheromatous element, which leads to those changes in the bloodvessels which close life at the natural period.

A kindred paper followed "On the Comparative Longevity of Animals of different species and of Man, and the probable Causes which mainly conduce to promote this Difference," by Mr. GEORGE HARRIS. He gave various instances of longevity in animals, and mentioned that it was among wild animals that the most extraordinary instances were afforded. Passing on to longevity in man, he said that it might be assumed that the real and only scientific test as to the capacity of any particular individual frame to last for a greater or less period of time, turned on the constitution of such frame, whether as regards its material texture, its temperature, its organisation, or its fluids, more especially the blood. Proved longevity depended mainly on natural constitution. He then passed in review certain causes which would tend to abridge longevity, as incontinence, intemperance, unwholesome diet, artificial habits, &c.—In the discussion that followed upon the two foregoing papers, Dr. Murie said he had examined about 5000 animals and had ordinarily found the same diseases in them as occurred in man, many of which he described.—The President (Professor Turner) remarked that the animals just referred to were Zoological-garden animals, and could hardly be looked upon as living in an altogether natural condition; and the diseases mentioned might be attributed to the same causes as in the case of man, as confinement, crowding together, want of exercise, and of natural and proper food, &c. The Professor, as well as Mr. Ray Lankester, objected to the use of the term "constitution" in Mr. Harris's paper, which really went for nothing.

A very sensible paper "On Provincial Museums" was read by Dr. GRIERSON, of Dumfries, in which he advocated the importance of their formation in an educational point of view, in which the products of districts might be exhibited. Such institutions would not only tend to spread knowledge amongst the people, but they would be a means of preventing intemperance and of improving their moral habits.—Dr. Duns, Miss Lydia Becker, and Mr. Macknight spoke upon the subject. The first-named said that Dr. Grierson had himself set the example recommended in his paper, and that the experiment had created great interest in the district where he lived.

Dr. ARTHUR GAMGEE read a "Report on the Heat generated in the Blood during the Process of Arterialisation." He reviewed the various opinions on the subject which had been entertained, and noticed the experiments of Davy, which he said were probably valueless. On the other hand, Christison, in his accurate experiments, had ascertained heat was not materially involved during the process of arterialisation. The specific heat of blood was absolutely the same as that of water. Dr. Gamgee described experiments made by himself, several of them in conjunction with Professor Tait. The earlier experiments he made were unsatisfactory, and no positive proof was obtained of the heating of the blood when it absorbs oxygen. He then gave a description of experiments made this year with a complicated but improved apparatus. The results were that such an amount of shaking might be performed as to arterialise blood without the temperature being affected; when venous blood was agitated with hydrogen no heating of the blood resulted, but there was always a slight evolution of heat when the blood was shaken with oxygen.—In the discussion, Dr. Rutherford said the subject had puzzled many investigators, but the report Dr. Gamgee had given of the heat of the blood was highly satisfactory.—Mr. Ray Lankester and Professor Williams expressed their sense of the value of the report.—The Chairman (Professor Allen Thomson) took exception to the results obtained, and condemned the expression used relating to the experiments of Davy.

Dr. JOHN CHIENN read a paper entitled "An Experimental Inquiry into some of the Results of Inoculation in the Lower Animals." He noticed cases in which cancer from the human subject had been introduced by inoculation, and described the mode in which he had conducted his experiments. The great majority of cases of inoculation had been made on dogs, animals liable to cancer. A number of cases of inoculation had also been made on rabbits, two of which he particularly described. The general result

was that inoculation did not produce cancer, but a local disease not particularly due to cancer, and that this local disease had a tendency to heal by contraction or suppuration.—Professor Williams, Dr. Saunders, and others took part in a brief discussion which followed. Professor Williams had inoculated some fifty or sixty birds; all died from cancer. This did not happen with rabbits, and he thought that in birds the inoculation produced infection.

Dr. EDWARD SMITH read "Remarks on the Scheme of Dietaries in the Workhouses of England and Wales." He had been engaged in making inquiries into the subject of the dietaries of prisoners and others fed by the public, and the results reported to the Government were contained in various Blue-books. The foods selected in the workhouses were to be those in ordinary use in the several localities, and were to include oatmeal, cheese, and puddings. More bread was to be given to growing persons, and less food to women than to men, but the diminution was not to exceed one-sixth. He described in detail the dietaries which had been adopted in workhouses. It was doubted whether children in workhouses were as healthy as other children, and lately more bread-and-milk had been given. The results as to adults were satisfactory, particularly now that workhouses were filled by the aged and infirm, and not, as formerly, by the unemployed. This was the case in the workhouses to which he referred, but there were many in which the diet was unsatisfactory. In some, bread and gruel were always given for breakfast and supper, and not much meat at any time. In the cheese districts there were cases in which, out of 21 diets in a week, 18 were cheese and bread. In other cases meat was given too often—six or seven times a week—and in quantities far beyond the requirements of the body. It was difficult to interfere with local management in this country, but it was desirable to advance to uniformity, with the view ultimately of a dietary scheme being issued by the Government for the workhouses in the kingdom.

Dr. LANKESTER noticed the improvement in prison dietaries. In Ireland, however, the state of the dietary in some prisons was disgraceful. There the prisoners came out reduced in strength, so that it was impossible for them to do anything but steal. He considered that the dietary of workhouses was infinitely worse than the prisons. If they expected the children to grow up honestly they must feed them well. He did not say St. Pancras workhouse was the worst in the kingdom, but there had been cases there of aged persons dying of exhaustion during the night. Twelve or fourteen hours during the night was too long for an aged person to go without food. Some further discussion ensued, and Dr. Smith stated in his reply that now there were very few of the able-bodied class in workhouses in England.

Professor TRAQUAIR read a paper "On Restoration of the Tail in *Protopterus annectens*." He described two specimens in which the tail had been broken off, and that in the one case a less, and in the other a greater amount of restoration had taken place. Anatomists were familiar with the restoration of lost tails in lizards, and in the long-tailed amphibia, also with the renewal of portions of the fins of fishes, but no case of the restoration of the caudal axis in an adult fish had been as yet recorded.

This was followed by a lengthy and highly important paper "On the Morbid Appearances noticed in the Brains of Insane People," by Dr. J. BATTY TUKE and Professor RUTHERFORD. Fifty-three brains of lunatics had been examined, and in every one the authors found a marked departure from healthy structure, the various diseases being described in the paper. It also contained the remark that physicians had arrived at the conclusion that insanity was a symptom of disease, not a disease itself.—A brief discussion followed, in which Prof. Saunders, Dr. Pye Smith, and the chairman, Dr. Allen Thomson, took part.

Professor TURNER read a paper "On the Cervical Vertebræ of the Steypirethyr Whale," which was stranded at Longniddry in November, 1869. After giving the measurements of the vertebræ, he stated that the transverse process of the atlas was not perforated by a foramen; the second to the sixth cervical vertebræ were perforated; the seventh had only its superior transverse process well developed.

Another paper followed by Professor STRUTHERS, "On the Cervical Vertebræ in Cetacea—namely the Pike-whale, Great Rorqual, Narwhal, and Pilot-whale." The author's observations were directed chiefly to the consideration of the various conditions of stiffness and mobility of the vertebræ, and the various degrees of development of the transverse processes. The seven vertebræ were present as a mammalian affinity, and their conditions were modified by function. At the conclusion of the paper the author alluded to the great difficulties, even at the risk of health, attending the dissection of these enormous animals.—An animated discussion followed on these two papers, in which Professor Allen Thomson, Professor M'Alister, Dr. Murie, and others took part.

A paper of considerable interest was read by Professor M'ALISTER, "On the bearing of Muscular Anomalies on the Darwinian Theory of the Origin of Species"; another by Dr. M. WATSON, entitled "Contributions to the Anatomy of the Thoracic Viscera of the Elephant"; and a third by Mr. E. RAY LANKESTER, "On the Existence of Hæmoglobin in the Muscular Tissue, and its relation to Muscular Activity."

Professor RUTHERFORD exhibited a Model of the Circulation constructed by him with a view to elucidate the phenomena of the Pulse and the Blood-pressure. With the aid of the apparatus he showed how the pulse is produced, why it is that, with dilated capillaries, there is a pulse in the veins, and why there is no pulse in the veins when the capillaries are contracted. He further showed why it is that the arterial is higher than the venous pressure, and the causes of variation in the amount of the arterial pressure.

There were many other papers of great interest read, of which we have scarcely room even to mention the subjects; a whole series were devoted to the contents of various caverns, all bearing more or less upon the antiquity of man and animals. The subject of Spontaneous Generation was reopened by papers read the last day of the meeting, in which Dr. John Dougal, Dr. Ferrier, Dr. Burdon Sanderson, and Dr. Charles Bastian were contributors. The Cultivation of Ipecacuanha in the Edinburgh Botanic Garden for transmission to India formed the subject of a paper by Professor Balfour; and the Magnetic and Diamagnetic properties of the Blood, another by Dr. Arthur Gamgee.

The concluding meeting took place on Wednesday, the 9th inst., when it was announced that next year the Association would meet at Brighton, under the presidency of Dr. W. B. Carpenter.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE twenty-sixth annual general meeting of this Association was held on the 3rd inst., at the Royal College of Physicians. There was a morning meeting for the dispatch of business, and a second meeting in the afternoon, at which Dr. Maudsley, the president, gave an original and thoughtful address, in which he principally considered three points—1, the prevention of insanity; 2, the treatment of the insane in private houses and in asylums; and, 3, the use and abuse of sedatives in the treatment of insanity.

Dr. Maudsley remarked that the question of the prevention of insanity, although a most important one, had hardly ever been seriously propounded. Luckily for us, insanity, unlike some other fearful diseases, could not be conveyed by man to his fellow-man by infection or contagion; but, on the other hand, it was of all diseases the one most likely perhaps to be inherited by one generation from that preceding it. Then, again, it was a disease of so fearful a nature, affecting the highest and most distinctive of man's attributes—mind—that the sufferer from it was regarded as having really sustained a fall from man's high estate, and his relatives accordingly often strove their hardest to conceal the fact. Now, if we had certain animals who were deficient in what ought to be their chief characteristics—greyhounds, for instance, who could not run fast, or race-horses who were deficient in speed and staying power, should we make choice of these for the purposes of propagation? Certainly not. Then the question arose, ought we

to permit men in whom there was a tendency towards mental alienation to marry? This was a most difficult question by reason of the different degrees of liability to insanity which necessarily existed in different individuals. Then, again, the phenomena of atavism and the alternation of neuroses very much complicated the question. For instance, the son of a madman may escape and the grandson be utterly insane; and the offspring of epileptic or neuralgic parents may show very strong tendencies towards insanity. Again, it had been remarked that the offspring of the insane had not unfrequently been men of great genius, and hence the question arose whether, by forbidding the marriage of a man with tendencies towards insanity, we might not be depriving the world of a mind which would more than compensate for innumerable mental aliens. The descendants of the insane are often very original thinkers. They explore the little-trodden paths of knowledge, they have often indomitable energy, and are careless of all obstacles. Dr. Maudsley thought that if a man had actually had an attack of insanity, we ought to use all our powers of persuasion to prevent his marrying, but in other cases he did not recognise the utility of interfering. He thought that not much was to be done for the prevention of insanity by the prohibition of marriage, but that more could be done by the careful and scientific education of the children of the insane. No person predisposed towards insanity should be considered as a helpless victim to his fate. A man can, to a certain extent, by sheer force of his will, make his character grow to the ideal he sets before himself, and, undoubtedly, a great deal is to be done by the careful mental training of those predisposed towards insanity. The insane themselves, it is well known, have at times a great power of control over their actions; and, *à fortiori*, those who are merely predisposed towards insanity should be likewise able to exercise this control. Unfortunately, as a rule, children with an hereditary taint are always worse managed than other children, and are, therefore, doubly cursed.

With regard to the treatment of insane persons, Dr. Maudsley thought the fashion of at once despatching a lunatic to an asylum should by no means be necessarily followed in all cases. Many cases recovered without ever being sent to an asylum, and many cases were on record which baffled all treatment while resident in an asylum, but rapidly recovered after effecting their escape. M. Comte was a notable instance of this. He was an inmate of Esquirol's asylum, but, managing to effect his escape, he recovered and wrote his famous work on "Positive Philosophy." On the whole, Dr. Maudsley thought that only in a very few cases was it absolutely necessary to send the patient to an asylum. The recovery of many patients was retarded by the absence of "home influence," and the utter banishment from their friends and relatives which was entailed upon them. It was unfortunate that the treatment of the insane had become such a narrow specialty, and it would be an excellent thing if the State would authorise medical men to receive a very small number, say two or three, insane patients into their houses. He believed that patients placed in this position would be more likely to do well than those who were sent to larger establishments.

In treating of the third division of his subject, the use and abuse of sedatives, Dr. Maudsley began by seriously doubting if it were always a wise thing to stifle excitement, and whether a chemical restraint put upon the brain-cells was not often as injurious to the patient as a mechanical restraint imposed upon his limbs. He thought that sedatives were given far too recklessly; that, although they might relieve symptoms, they often only served to push the patient further down the hill, and, as often as not, retarded recovery. He thought that the whole range of sedatives, including bromide of potassium and the hydrate of chloral, were all equally capable of being abused; that by giving them we often materially damaged the patient's general health, and, instead of curing, we often merely "made a solitude, and called it peace."

Dr. Maudsley's address, to which we have done but scant justice in the space allotted to us, was listened to with marked attention throughout, and was followed by a most interesting discussion, in which Drs. Bucknill, Davey of Bristol, Arlidge, Wood, Clouston, Monro, and others, took part. A cordial vote of thanks to the President brought the proceedings to a close.

PRECAUTIONS IN THE NORTH AGAINST CHOLERA.

WE are exceedingly glad to find that the authorities at the several ports in the North of England are in earnest in devising measures to stay the importation of cholera into the country. The following is a general outline of the various steps taken:—

A meeting has been held of the several nuisance authorities exercising powers over portions of the river Tyne, which Mr. Radcliffe, the Medical Inspector of the Privy Council, attended for the purpose of advising the local authorities; the results of such meeting are most beneficial, the several authorities having agreed to act together with respect to the recent Order in Council in reference to cholera. They also decided—(1) That an inspection should be made of vessels arriving from suspected ports, and that one or more medical officers, with such assistance as may be requisite, should be appointed to act in conjunction with the officers of her Majesty's Customs. (2) That a floating hospital should be at once provided for cases of cholera occurring afloat. (3) To ask the Tyne Improvement Commissioners to lay down, in the Narrows, moorings for infected vessels and the floating hospitals. (4) To take steps for disinfecting vessels. (5) That the expenses incurred with regard to cases afloat should be defrayed by the contribution of every nuisance authority on the banks of the river, in proportion to the rateable value of each district. (6) That a committee, consisting of the mayors of Newcastle, Gateshead, Tynemouth, and South Shields, the collectors of her Majesty's Customs at Newcastle, Tynemouth, and South Shields, the Deputy Master of the Trinity House, the Chairmen of the different Local Authorities, three members of the Newcastle Corporation, and one from each of the other boroughs, with the different town clerks and clerks of local boards, be appointed such committee, and that they be requested to appoint sub-working committees to carry out the preceding resolution. The meeting then adjourned to the 10th inst., at two o'clock. Such a union as this cannot fail to be much more effective than if the several authorities worked independently.

At Sunderland and Seaham similar steps have been taken to place ships in strict quarantine if needed.

At Alnwick measures are being adopted to remove nuisances and to improve the sanitary state of the place. At the suggestion of the town surveyor, middens and pits, cesspools and sinks, are to be cleared out and disinfected, and all accumulations removed from the town without delay; yards to be lime-washed where necessary; cases of overcrowded dwellings to be specially considered; no water to be suffered to be wasted; the inhabitants to be specially requested to assist the Board to have the town thoroughly cleaned, and the Board to employ an additional staff of men, for the time being, to carry out any works that may be necessary in cases where owners or occupiers are not in a position to have the work done in a satisfactory manner.

At West Hartlepool, the medical officer of the Corporation has been ordered to carry out all necessary measures for subduing the disease, should it appear, and the surveyor to co-operate by disinfecting all places necessary, and where filth accumulates; and a concerted plan of action has been entered into between the Commissioners' officials, the officers of her Majesty's Customs, and the Pilotage Board. Mr. Radcliffe was there on Saturday.

At Hull, Mr. J. F. Holden has been appointed medical inspector over the shipping. Since the cholera last visited Hull the town has been deep-drained with a good fall, a pure supply of water has been secured, and inspectors of nuisances and the like have been appointed. To meet the present emergency a cholera hospital in a suitable site has been erected, capable of containing twenty-eight patients, and it is ready for the reception of cases; and Mr. Holden himself inspects every ship that arrives from infected ports. The Sanitary Committee have taken most active steps to give effect to the recent Order in Council. The surveyor has been ordered to put the town in a thoroughly sanitary condition, and measures have also been taken to prevent overcrowding in common lodging-houses and the like.

At Liverpool the authorities are now equally on the alert, and also at Stockton, Whitby, and other places whither Mr. Radcliffe has been.

THE LANCET.

LONDON: SATURDAY, AUGUST 12, 1871.

UNHAPPILY, cases of cholera still continue to occur in certain ships on their way to England from the Baltic. It is, therefore, so far satisfactory to find that the local authorities of the northern ports, which are just now more directly threatened, have in many cases been stirred up by the visit of Mr. NETTEN RADCLIFFE to something like an active crusade against insanitary nuisances, as well as to a proper sense of what was immediately needed to bar, as far as possible, the ingress of actual choleraic disease to these ports. At Hull, for instance—which, we are glad to find, is much better circumstanced, as regards its sewerage, its water-supply, and its nuisance authority, than it was during the severe outbreak of cholera in 1849,—the surveyor has been instructed to place all sewers, ditches, and streets in a thoroughly sanitary state; like measures having also been adopted in other contiguous places; whilst at the threatened ports precautions in accordance with the recent Order in Council have been cheerfully and readily taken. But it is very unsatisfactory to find that local authorities require to be thoroughly frightened by nothing less than a cholera panic into taking such simple procedures as these. It shows how dull they are to the plainest teachings of experience. Mr. RADCLIFFE accomplished a rare feat in getting the various sanitary authorities on the Tyne—to the number of ten, we believe,—to so quickly agree upon a common and an efficient course of action at the mouth of the river. We trust he may be as successful in regard to the sixteen at the port of London. By securing combined action in this way an enormous waste of power and great inefficiency of action have been and are prevented. But why should there be ordinarily any such difficulty in the enforcement of sanitary regulations? It is known, as regards danger from without, that sooner or later disease will be introduced amongst us from other countries through the agency of human intercourse, and that it will spread in direct proportion to the degree of allowed pollution of air, water, and soil; it is also known, as regards danger from within the country, what are the causes which generate infectious fevers and the like wholesale amongst us, and that these diseases, like the others, are preventable. Yet the authorities stand still. If they are not stimulated to resolute action by the experiences of the past, then nothing else can do it. No doubt a large number of our local authorities cry aloud for more powers, because they are actually ignorant of those which they at present possess; but the real cause of the miscarriage of sanitary measures is of course to be found in the want of unity and control in the administration of the sanitary laws. There are few who will not share in Mr. DISRAELI'S regrets that this session should have been to some extent frittered away upon comparatively unimportant matters, to the exclusion of the consideration of the great question of sanitary reform. Until the Government of the day deals fully with it, we shall have, what we imagine will happen on the present occasion, a certain amount of spasmodic effort to bring about sanitary improvement in our large towns. A panic seizes us whenever it appears that the hand of death may, from an exceptional cause, be temporarily more busy than usual amongst us; and then there is a lapsing into indifference as soon as the immediate danger and fright are over.

We cannot but ascribe the indisposition of the present Government to deal speedily with the great question of sanitary legislation in some degree to a very mistaken notion on their part (if we may take the Prime Minister as their mouthpiece) as to the actual facts of the national health at the present time. We find Mr. GLADSTONE telling the House of Commons on Tuesday last that the tables of mortality show a progressive lengthening of life, and using this as an argument in proof of the assertion that the physical condition of the people of this country has improved—at any rate, that it has not suffered deterioration. To say the least, there are no facts yet published to substantiate Mr. GLADSTONE'S assertions, which are at variance with the facts and figures that the Registrar-General has made public. There are, indeed, no facts to show that the state of the national health has of late been one of progress, and that the need of immediate and comprehensive sanitary legislation is not a real and urgent one.

WE gave some weeks ago the outline of the Conjoint Scheme in contemplation for England. The following are the details which, with some slight modifications suggested by the University of London, have been approved by the College of Physicians and the College of Surgeons. The London University has assented to the scheme; and the representatives of the three other English universities have also signified their approval.

1. That a Board of Examiners be appointed in this division of the United Kingdom by the co-operation of the Royal College of Physicians of London, the Royal College of Surgeons of England, and of such other of the medical authorities in England, mentioned in Schedule A to the Medical Act, as may take part in its formation, it being understood that, liberty being left to such co-operating medical authorities to confer, as they think proper, their honorary distinctions and degrees, each of them will abstain from the exercise of its independent privilege of giving admission to the Medical Register.

2. That the Board be constituted of examiners, or examiners and assessors, appointed by the several co-operating medical authorities.

3. That examiners be appointed on the following subjects:—Anatomy and Physiology; Chemistry; Materia Medica, Medical Botany, and Pharmacy; Forensic Medicine; Medicine; Surgery; Midwifery; or on such subjects as may be hereafter required.

4. That no examiner hold office for more than five successive years; and that no examiner who has continued in office for that period be eligible for re-election until after the expiration of one year.

5. That the examiners be appointed by the several co-operating medical authorities, on the nomination of a committee, called herein "The Committee of Reference"; but

no member of the Committee of Reference shall be eligible for nomination as an examiner.

6. That a Committee of Reference, to consist of an equal number of representatives of medicine and of surgery, be appointed as follows:—One representative of medicine and one representative of surgery, to be appointed by each of the Universities in England; four representatives of medicine, to be appointed by the Royal College of Physicians of London; four representatives of surgery, to be appointed by the Royal College of Surgeons of England.

7. That one-fourth of the Committee of Reference go out of office annually; and that, after the first four years, no retiring member be re-eligible until after the expiration of one year.

8. That the duties of the Committee of Reference be generally as follows:—(1) To determine the number of examiners to be assigned to each subject of examination. (2) To nominate the examiners for appointment by the several co-operating medical authorities. (3) To arrange and superintend all matters relating to the examinations, in accordance with regulations approved by the co-operating medical authorities. (4) To consider such questions in relation to the examinations as they may think fit, or such as shall be referred to them by any of the co-operating medical authorities, and to report their proceedings to all the said authorities.

9. That there be two or more examinations on professional subjects; and that the fees of candidates be not less than thirty guineas, to be paid in two or more payments.

10. That every matriculated student of an English University who shall have completed the required curriculum of professional study, and shall have passed such an examination or examinations at his University as shall comprise the subjects of the primary examination or examinations conducted by the Board, be eligible for admission to the final examination; and that every candidate so admissible to examination be required to pay a fee of five guineas; but he shall not be thereby entitled to the licence of the Royal College of Physicians of London, nor to the diploma of Member of the Royal College of Surgeons of England, without the payment of an additional fee of not less than twenty-five guineas.

11. That every candidate who shall have passed the final examination conducted by the Board shall, subject to the bye-laws of each licensing body, be entitled to receive the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England.

We have already expressed our opinion on this project, and have little more to add to what we have said. We have given praise to the corporations and the universities for perceiving that some concession of their privileges is called for in the interest of the public, and for making a concession. Of course matters have come to this pass—that the only chance of the existing bodies retaining the licensing power and the portal to the profession is in their agreeing to a conjoint scheme. Still, it is not in the nature of corporations to anticipate the inevitable and to try to control it; and in doing so in this instance they are entitled to some praise. That the English bodies are not altogether unmindful of their own interests in this matter is pretty apparent from Clause 9 of the above scheme, which provides a payment of not less than thirty guineas by candidates for the conjoint licences. We are aware that this is less by a few pounds than the present cost of the two English qualifications, taken singly. But it is nearly double the cost of a double qualification in Scotland. The fee of this scheme is a very serious tax to impose on future generations of students, especially in view of an increasing expensiveness of medical eduction. English students will not be so likely as at present to take a qualification in England for thirty guineas, when they can procure exactly the same in Scotland for sixteen pounds. Clearly we shall be further from uniformity in licensing arrangements if this scheme is confirmed by the General Medical Council—whose sanction, by the way, is requisite to any such scheme, according to Clause 19 of the Medical Act, under which such amalgamations take place. The Committee of Reference will consist of sixteen persons, and will be responsible to nobody in particular. It will have more important functions than the Medical Council, without any of its responsibility. The absence of the Apothecaries' Society from this scheme will leave a medical body in England independently to grant its qualification, which will be as valid a claim for admission to the Medical Register as that involved in the possession of the conjoint licence. The more this scheme is examined, the less will it appear to be a solution of the great problem of supplying a trustworthy and uniform one-portal examination for the United Kingdom.

LAST WEEK we gave a short summary of the results of the further experiments of Dr. BURDON-SANDERSON touching the question of the intimate pathology of contagion recorded in the Report of the Medical Officer of the Privy Council just issued. There are one or two points which we may take up in detail with advantage to our readers. Dr. SANDERSON deals this year specially with the origin and distribution of bacteria in water, and the circumstances which determine their existence in the tissues and liquids of the living body. Now, as regards the latter of these points, we learn that the author is entirely at variance with HALLIER, on the one hand, who affirms that microzymes are to be found in the liquids of persons affected with contagious diseases, and with BÉCHAMP, on the other, who asserts that they occur in living healthy tissues. Dr. SANDERSON tells us that he cannot find any visible micrococci of HALLIER in the blood of scarlatinal patients, nor can he discover any zymotic property belonging to the normal liquids or tissues as evidenced by the growth of organisms derived from them in test-liquids. If we take a portion of boiled PASTEUR'S solution, and place it in a heated eprouvette, no evolution of bacteria takes place therein, Dr. SANDERSON shows, unless the fluid is contaminated with some foreign substance, as water, or comes in contact with ordinary surfaces, as glass; but, when bacteria appear, they come from contaminating substances from without. Now by impregnating eprouvettes properly charged with test-solution, and allowing healthy blood to flow directly into it, no evolution of organisms takes place. The same result is obtained with pieces of tissue of animals cut out by the aid of scissors heated in a BUNSEN'S flame, with urine and saliva; but—and this is very interesting—pus from a pyæmic abscess caused the charged eprouvette to teem in a few days with bacteria, though ordinary pus did not do so. The success of these experiments—which are very suggestive in relation to the cause of carbuncular affections,

charbon, and the like, as defined by M. DAVAINE and others—depends upon the non-contamination of the charged eprouvettes by any substances or liquids other than the actual blood, urine, pus, &c. These experiments of Dr. SANDERSON'S seem, so far as they go, to show us that we must look for the cause of "putrefactive" changes in the body from without, in the introduction into the body of low organic forms (if these are the producers as well as the pioneers of such changes); and that these are not fungi. The observation made with regard to pyæmic pus is most suggestive of further inquiry. We leave this matter, however, and proceed to make a few remarks upon the relations of the bacteria or microzymes themselves. We find no evidence in favour of their spontaneous generation. The reader will find a number of experiments detailed by Dr. SANDERSON in which it is shown that no microzymes appear in superheated liquids—e.g., PASTEUR'S solution,—not even when exposed to the air (though this is not the case as regards fungi); but if a pipette which has not been heated be introduced, or a drop of distilled water be added, they are at once developed. The general result educed from a considerable number of variously planned observations is that no microzymes are contained in ordinary air, but that they abound in water and are attached to ordinary surfaces, such as glass; for if into a test solution an unheated pipette be introduced, that alone is sufficient to cause microzymes to be present; and it turns out that, viewed by the electric beam, water which is apparently optically pure, and in which no organic particles can be discovered microscopically, is seen to contain germs of a very minute form. Whilst, therefore, Dr. SANDERSON'S experiments show that microzymes (bacteria) and fungi are different as regards their mode of growth and origin, we have yet probably to employ more perfect means of examination before we can say that fluids in which no organic particles are discoverable with our existing microscopic aids are actually free from them; whilst bacteria are not derived from fungi, they have not as yet been shown to be identical with the colloid matter of the fluids in contagious diseases, and the relationship of the two has yet to be traced out.

THE Report, which we give in another part of our impression, will enable our readers to follow the members of the British Medical Association in their annual outing in the south of England. The weather has proved favourable for once to the members of the profession who have betaken themselves to Plymouth; and nothing appears to have been wanting in the welcome offered the Association, both by private individuals and public corporations. The heat of the sun, acting upon somewhat excitable temperaments, appeared at one time likely to lead to an explosion of personalities; but a night's rest did much to calm the excitement, and those who lay down with the lion rose up with the lamb.

The meeting on Tuesday evening appears to have given a remarkable illustration of the manner in which the business of the Association is managed by those in authority. Mr. HUSBAND, of York, the President of Council, in anything but a conciliatory manner, moved the adoption of the Council's Report, in which very vital alterations in the constitution of the Association were recommended; and Dr. DAVEY and Mr. GAMGEE, who ventured to protest against these propositions, were simply "sat upon." After this little episode we were not much surprised to find that the consideration of the new laws was merely a farce, Mr. HUSBAND (after the manner of Prime Ministers) being determined to carry everything with a high hand. We doubt, however, if there is any precedent, parliamentary or otherwise, for the course which was finally adopted—viz., to pass the whole of the new laws *en masse* without discussion or amendment! Verily, the House of Commons might take a lesson of the British Medical Association, if saving of time and trouble is the sole object to be kept in view.

The result, as announced on Wednesday morning, is that the business of the Association is again entrusted for the remainder of the year to the hands of Mr. WILLIAMS. We may therefore suppose that the serious charges of neglect brought against him in the pages of the Association *Journal* by Dr. HODGSON, of Brighton, have been disposed of, especially seeing that the Association have agreed to give the secretary £50 extra for his half year's duty.

The Address in Medicine, by Dr. GEORGE JOHNSON, will be found at another page; and we give a brief telegraphic summary of the Address in Surgery by Professor LISTER. We shall probably make some remarks upon both these discourses next week.

Medical Annotations.

"*Ne quid nimis.*"

THE MEDICAL COUNCIL OF CANADA.

IT will be in the recollection of our readers that an Act was passed in 1869 for the regulation of the profession in Upper Canada, creating a Medical Council into which five representatives of homœopathy were to be admitted, and providing for the exemption of homœopathic and eclectic (whatever that may mean) students from examination in materia medica and therapeutics, the theory and practice of physic and surgery, except by examiners approved by the representatives of homœopathy and eclecticism in the Council. We disapproved entirely of such a mixing up of homœopaths and eclectics with a body representing medical science, not because we are illiberal, but because two cannot walk together unless they agree. Moreover, we think it no hardship to even a homœopathic student to require of him a knowledge of what is considered medical science, even if, after acquiring this knowledge, he chooses to prefer the homœopathic or even the eclectic practice. The proceedings of the recent meeting of the Medical Council at Toronto confirm these views. In a good address by the President, Dr. Covernton, in which, by the way, he was rather hard upon ourselves, he showed by one statement that special examiners for homœopathic students are unnecessary, inasmuch as neither in the examination at Kingston in 1870, nor at the second one in Toronto, did a single student avail himself of the exemptions provided for homœopaths and eclectics. All honour to the students. Another argument against the special legislation in favour of homœopaths is to be found in the stormy way in which the meeting broke up, under the effect of a proposal by Dr. Campbell to diminish the stringency of the regulations now applicable to homœopathic and eclectic graduates from

homœopathic colleges in the United States, who are candidates for examination by the Ontario Council. The president objected to the motion on the score of want of notice, and the allopathic members carried a motion adjourning the Council *sine die*, Dr. Campbell becoming prophetic, and declaring that they would never meet again as at present constituted. It is quite likely that there will soon be fresh medical legislation embracing the whole of Canada. If so, let us hope that the fact that homœopathic students do not desiderate a special examination will induce the Legislature of Canada to grant a Council composed of men likely to agree. On the other hand, so long as homœopathic students are ready to pass the regular examinations all oppressive regulations as to curriculum and places of study should be swept away. It is unnecessary to inquire where men studied if they are prepared to pass a fair and scientific examination.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE handsome testimony which the Medical Officer of the Privy Council has borne to the great utility of the Registrar-General's new series of Quarterly Returns is satisfactory, as indicating a desirable *rapprochement* between two public departments which ought to work in closest harmony with one another. The machinery of registration ramifies throughout every part of the country; and it is significant of the comparatively modern recognition of the importance of public health questions that thirty-five years ago, when the Registration Act was passed, no provision was made for utilising the services of the local registrars in aid of preventive medicine. The fact that these officers are in a position to have accurate knowledge of local unhealthiness, which, if promptly communicated to the Central Office, might lead to the adoption of measures for preventing or mitigating the ravages of epidemics, has only begun to be fully appreciated within the last few years, and owes its acceptance now in great measure to the interest created by the inquiries undertaken by Mr. Simon's department on the basis of information supplied by the registrars. But, now that we have discovered how useful the registrars are to us, care ought to be taken that no injustice is inflicted upon them. The scope of their duties has been materially increased since the Registration Act was passed, without any increase having taken place in their pay; and it seems to us that this is a point to be had in mind when the Act undergoes amendment next year.

The Return for the June quarter is, on the whole, more satisfactory as regards the public health than might have been anticipated from the extremely ungenial weather and the known prevalence of small-pox in many places. The death-rate was a trifle below the average for the previous ten June quarters; the birth-rate was also below the average. The mortality of the quarter appears to have been governed by the small-pox epidemic, as in the three registration divisions showing an excess in the general death-rate small-pox prevailed, while in the other eight divisions there was comparatively little or no small-pox and the general death-rate was below the average. There was a difference of 4 per 1000 in the death-rate of the urban and the rural districts, nearly half this excess in the towns being due to small-pox. The development of the small-pox epidemic is shown in the rise of the deaths from 1229 in the last three months of 1870 to 4903 in the next quarter and to 7012 in the quarter last completed. Of these latter, 3241 occurred in the metropolis, 1120 in Cheshire and Lancashire, and 1069 in the northern division, 1585 having been yielded by the rest of the country. The Registrar-General calls attention to the fact that the principal centres of infection were the same four that were noticed in the first Quarterly Return of this year—namely, London, Liverpool, the northern coal districts, and the mining districts of South Wales. Statistics have rendered good service to preventive medicine by showing the localisation of preventable diseases; it has been shown that cholera and scarlet fever have their favourite "fields," and it would seem that the same is true of small-pox.

EMIGRATION.

THE medical aspects of the Thirty-first General Report of the Emigration Commissioners, just issued, are in some sort worthy of attention. It appears that the mortality among the 192,005 emigrants who embarked last year was 106, or only ·05 per 100, which, assuming the average passage to have been twelve days, would be equal to a mortality of 17 per 1000 per annum. The mortality in the sailing vessels was even smaller; but the number carried in proportion to space was so different, that they afford no fair criterion of the relative sanitary condition of steamers and other ships. In the course of last year, Dr. Cunningham, the Sanitary Commissioner with the Government of India, drew up a code of instructions for the guidance of surgeons of Indian emigration ships in outbreaks of fever; but it appears that during the past season no epidemic occurred in any of the coolie ships despatched from India. Arrangements are being made, and will probably take effect next year, with the view to limit the season for sending emigrants from the East to the West Indies, to the middle of February. Another recent order indicates that emigrant ships starting from Calcutta must obtain their water-supply exclusively from the municipal hydrants, and not from the tank boats, as heretofore. During the past year the Legislature of Trinidad has been employed in consolidating and amending the existing laws of the colony with regard to immigration, and two most important alterations in the previously existing laws have been made. The first enacts that the governor of the island shall have power to appoint medical visitors of plantations, thus making the latter entirely independent of the planters, and the second gives authority to the governor to remove immigrants from a plantation where the hospital is certified by a medical inspector to be unfit for use. Both these enactments are steps in the right direction, and indicate a considerable interest on the part of the local authorities in the health of the immigrants. We do not find any other points in the report pertaining to matters medical. The emigration from our shores is chiefly carried on at Liverpool, which has always been the principal port of departure, and is there managed excellently well. The steamships are roomy and well ventilated, the provisions are good in quality and are dispensed liberally, and the general treatment on board leaves little to desire. But some plan should be adopted whereby the emigrants can be efficiently protected from "thieves and robbers" between their arrival at the port and the day of departure. Lodging under official superintendence, or immediate embarkation, would give these travellers a much better chance of starting fair. As it is, many of them arrive at New York with scarcely a week's subsistence money.

It is a matter of regret that no mention is made in the report as to the arrangements now in force at Calcutta and other parts of the East relative to the coolie emigration. We have several times taken occasion to state our conviction that the horrors occurring continually on board coolie ships bound from Calcutta to the West Indies are mainly attributable to the negligence of those entrusted with the conduct of their embarkation, or to the imperfect way in which the duties of these officers are enunciated. Three chief conditions should invariably obtain—(1) none

but healthy emigrants should be allowed to embark; (2) the provisions supplied for the voyage should be most strictly and scrupulously examined; (3) the rules referring to cubic space on board ship should be most vigorously adhered to. Unless constant attention is paid to these matters, we shall continue to receive periodical accounts of coolie "catastrophes," belonging very much more to the slave trade epoch than to that of legitimate and civilised emigration.

THE VENTILATION OF CHURCHES.

IT is the duty of THE LANCET, among other things, to advise that cleanliness should come next to godliness. And, inasmuch as the former implies clean atmosphere as well as clean clothes and a clean skin, it is our bounden duty to inveigh against all practices that tend to a disregard of the cardinal principles of health. It is not our inclination, and it is certainly beyond our province, to interfere with the religious observances of any sect or society. But we may be permitted to inform the public that all sects and all societies (including the Church militant), as a rule, habitually disregard the laws of health in the erection and maintenance of their places of worship, and so court fever at the risk of avoiding bronchitis. We may, indeed, challenge Mr. Gilbert Scott to declare whether in his most successful episodes of ecclesiastical architecture ventilation has often found a conspicuous place. And hence it is that worshippers of all kinds and degrees assemble in buildings, more or less worthy of the exalted titles they bear, exposed to intense cold in winter and intense heat in summer, because the openings in windows and roof are so few in number and so ill-arranged that they exclude summer breezes and admit wintry winds in small currents most successfully. At this season of the year the windows of most of our churches, at the time of service, are bedewed with moisture that render them semi-opaque, resulting in deficiency of light as well as indicating want of ventilation. The women are either fainting or fanning themselves, and the men naturally enough are wishing for the end, profuse perspiration not conducing either to placidity of thought or a devout frame of mind. There can be no doubt, indeed, that our public places of worship are wofully ill-ventilated, and we are prepared to quote a church in the parish of Greenwich and one at Highbury in proof thereof. Still we are bound to declare that these deficiencies are very much enhanced by the stupidity of vergers and other minor dignitaries. These officials, according to our knowledge and belief, take especial pains to close all doors and windows immediately after the departure of the congregation, in order that "the interior" of the building may not "catch cold," or, in other words, may not want dusting. We take leave to recommend pastors, churchwardens, deacons, and others interested in the proper and healthful performance of divine worship, to take some sort of interest in the quality of the air breathed by the congregations committed to their charge.

JOHN HUNTER'S RESIDENCE.

MR. FRANK BUCKLAND has been an indefatigable searcher for relics of the greatest anatomist, physiologist, and surgeon that England ever produced. Twelve years ago he found John Hunter's bones in the vaults of St. Martin's-in-the-Fields, and got them buried in Westminster Abbey; and he has lately been making a searching examination of the house and grounds that once belonged to him at Earl's-court, Kensington, but are now in the occupation of Dr. Gardiner Hill. According to all local tradition, the house and grounds are very little, if at all, altered since the days that John Hunter lived there. The house was built by himself, and it is such as might have been expected—without the slightest attempt at effect or useless ornamentation. His favourite room was evidently the large one on the ground-floor, looking out on the park; Mrs. Hunter's rooms being doubtless upstairs. All round the house is a covered cloister dug about six feet into the earth. This cloister probably served the double purpose of keeping the house dry and of being a good place for keeping live stock. Mr. Frank Buckland has no doubt that here many of Hunter's smaller animals used for experiments, such as dormice, hedgehogs, bats, vipers, snakes, and snails, for his researches on torpidity, were located; as well as hutches of rabbits, whose unfortunate fate it was to have their ears frozen to prove points connected with blood-circulation. The entrance into these cloisters leads through a very dark subterraneous passage, at one end of which is a mysterious-looking door, leading into a small room, now used as a receptacle for rubbish. In a corner of this room there is a largish-sized copper boiler standing out of the wall. "If this old boiler," exclaims Mr. Buckland, "could only tell us what it had boiled!" *One* giant, we know, was boiled in it; for in 1787 John Hunter wrote to Sir Joseph Banks—"I have lately got a tall man. I hope to be able to show him to you next summer." This was, no doubt, O'Brien, the Irish giant, whose skeleton is now in the Hunterian Museum at the College of Surgeons. Close to the boiler are the old (now tumble-down) pig-sties, where, probably, John Hunter kept the little pigs which he fed with madder, so as to cause their bones to become red. The places where his cocks and hens, pigeons—that have become matters of history now—probably lived, and all his other animals, are described. But we have no further space to pursue Mr. Frank Buckland in his tour of inspection—interesting as it is—through John Hunter's house and grounds. Our readers must themselves refer to the number of *Land and Water* for the 8th ult. for the detailed account of what things he saw, and the speculations and conjectures to which they gave rise. Earl's-court may disappear, but the memory of John Hunter is still to be kept in Kensington by a memorial window which it is proposed shall be erected in the new church. "The larger the subscriptions," says Mr. Frank Buckland, "the more beautiful will be the memorial."

HOSPITAL STOPPAGES.

SOME time has elapsed since we directed attention to this subject in connexion with a communication from Dr. Robinson, Surgeon-Major Scots Fusilier Guards, that appeared in *The Times*. We are not sorry to observe that Dr. Robinson has returned to the charge in a recent article in *Colburn's United Service Magazine*. At the present time, when the position of the soldier, and the most expedient method for inducing a good class of men to enter H.M.'s army, are being so much discussed, it is well to recall attention to the matter. The daily pay in the army differs in amount, but the hospital stoppage remains the same throughout the service—viz., 10d. per diem. Under existing circumstances no difference is made in the sum of which a soldier is mulcted, whether he is married or single, or whether he is ineffective in hospital from disease wholly self-induced, such as that caused by vicious or intemperate habits, or, on the contrary, by a sickness contracted in and by the performance of strictly military duty. In other words, a man may, time after time, escape duties which he has engaged to discharge, and which fall to the lot of his comrades to perform, by becoming an inmate of hospital from causes within his control; and, on the other hand, a married soldier, with a family to support, averse as he is to go to hospital and dissever himself from

his home, may be compelled to become a hospital patient for a grave pulmonary disease excited by, or attributable to, military duty. The question arises whether it is just and equitable that the two classes should have to forfeit the same sum to Government as a stoppage? Dr. Robinson states that, practically, the deduction from the pay of married soldiers leads to a reluctance on their part to seek medical aid by reporting themselves sick. It sometimes happens, moreover, that a dissipated man is enabled to save money by a lengthened stay in hospital, and is thus able to indulge again in the same habits as soon as discharged from it. Dr. Robinson thinks that men affected with diseases of a clearly preventable character—such as delirium tremens and enthetic diseases—should be placed in a different category to patients suffering from other disorders, and that the former should be treated as if they were in the position they previously held, whether that of labourer or artisan, when they would certainly not be in the receipt of wages under analogous circumstances. The period of service before a soldier can pass into the reserve is now so brief, and the age at which he enters so early, that the prohibition of marriage during the time of active duty cannot be viewed as the grievance it once was. As regards the possibly deterrent influence on recruiting, or the concealment of disease, it is not apprehended that these difficulties ought to stand in the way of effecting some better adjustment of the system of hospital stoppages than exists at present.

INFANT LIFE PROTECTION.

THE Report of the Select Committee on the Protection of Infant Life appears to us, so far as we can judge pending the publication of the evidence on which it is founded, to offer a simple and practical solution of the baby-farming difficulty. The Committee observe that many of the remedies submitted to them have failed to keep in view the important distinction between the criminal and non-criminal classes of baby-farming cases. It was a strong point in our minds against the Bill for the better Protection of Infant Life brought forward this session by Mr. Charley and his coadjutors, that its tendency was to mete out one measure to both these classes. We had objections also to the scheme of registration and inspection prescribed in the Bill, as being unnecessarily complex; and the suggestions of the Committee commend themselves to us inasmuch as they indicate that a future legislative measure, based on their Report, may be entirely freed from the defects which, in our opinion, marred Mr. Charley's Bill. The Committee could, of course, come to no other conclusion than that the registration of all births and deaths should, as an initial step for the better protection of infant life, be made compulsory. This has been affirmed so many times that we may now really hope everybody is agreed as to its necessity, and, consequently, that the Home Secretary (whoever he may be) will be constrained to redeem, at the earliest period of next session, Mr. Bruce's promise of an amended Registration Act. It seems to us a matter worth consideration whether it would not be desirable, in amending the Registration Act, so to enlarge its scope as to embody the main provisions necessary for the protection of infant life as recommended by the Committee. The multiplication of Acts of Parliament upon kindred subjects of legislation has been a great mistake hitherto, and should be avoided in future. The compulsory registration of all private houses used as lying-in establishments, making them subject to police inspection, and to other conditions of licence, will strike an effectual blow at criminal traffic in infant life; while the registration and licensing of persons who for payment take two or more infants under one year of age to nurse for longer periods than a day—care being taken "not to interfere with temporary arrangements of an unobjectionable character,"—cannot fail to have a good effect in diminishing the loss of infant life now so largely due to unhealthy surroundings, as well as to negligence or ignorance.

SIR JAMES PAGET, BART.

As there are very few men who have done more to entitle them to special recognition and titular distinction at the hands of their Sovereign, so there is probably no one on whom such distinction could have been conferred with greater general satisfaction than on Paget, who has so successfully laboured to elevate the character of his profession and enlarge its powers and usefulness by increasing its knowledge. Of the high order of Sir James Paget's intellectual attributes, and of the unusually distinguished position that he has long occupied as a scientific surgeon, pathologist, and physiologist, there is no need to speak. The recognition of these is only conterminate with the limits within which these branches of knowledge are cultivated. But of the qualities of his character—of that urbanity to all men in little things, and of that sympathy with suffering which underlies the calmness of a quiet confidence in the sagacity and accuracy of a rare judgment—only those can know who would not care to speak of them from a delicate appreciation of his dislike to public praise. We most heartily congratulate Sir James and Lady Paget. Very few men have worked harder or in a more truthful spirit, or been more before the world of science, than Paget; and still fewer have been able to communicate their thoughts and the results of their labours in a style so easy, graceful, and polished as his. It is not only that he has something good or original to say whenever he speaks or writes, but it is because he says it so well, that his writings and his speeches are always alike interesting and suggestive.

METROPOLITAN ASYLUMS BOARD.

AT the Metropolitan Asylums Board it was reported that the Islington Workhouse is closed. At Stockwell there has been a marked decrease in the number of fresh cases of small-pox, and it was arranged to restrict the admissions to the Small-pox Hospital, with the object of closing the Fever Hospital as soon as possible.

A conversation arose regarding the communications from the central authority as to the fever and small-pox cases within the knowledge of Poor-law officials, and Mr. Shaw Stewart held that the managers of the asylums should have early and continuous reports from the central authority as to the existence of these contagious diseases. The return of Dr. Bridges, the Poor-law Board medical officer, was read, showing the number of small-pox cases within the knowledge of the metropolitan relieving officers. The information only came down to the 29th ult., and it showed that in the week ending that date there were 63 cases less in the whole than in the preceding week.

HYPODERMIC INJECTION OF QUININE.

THIS subject continues to excite attention, if we may judge from the communications that appear in our contemporary the *Indian Medical Gazette*. The civil surgeon of Ahmedabad states that he has administered quinine by way of hypodermic injection for upwards of two years, and over a hundred times; and that this experience enables him to speak of the advantages of this method, in point of economy and efficacy, with a certain degree of confidence. The dose he has generally employed has varied from two grains and a half to three grains, dissolved in four minims of dilute sulphuric acid and fifteen minims of water. In

most cases the first dose was quite sufficient to put a stop to any further attack of fever; and in some it has benefited the patient by prolonging the period of intermission. His experience of it in remittent fever is much more limited, but, on the whole, favourable. But, above all, the most markedly beneficial effects of the hypodermic injection of quinine may be observed in cases of brow-ague or hemicrania of malarious origin. In no instance does he remember its having failed, either in his own or his assistant's hands, to give rapid relief, which in some cases proved to be of a permanent character where only one injection had been employed.

PERMISSIVE LEGISLATION.

WE have on several occasions pointed out the inutility and folly of permissive legislation, and may now remark that this has been never more strikingly shown than during the existence of the small-pox epidemic. Section 10 of the Merchant Shipping Act of 1867 *permits* the Board of Trade and Local Marine Boards to appoint medical inspectors of seamen, and *permits* such inspectors to examine seamen before signing articles, when requested to do so by the owner or master of the ship. The result has been that medical inspectors have been appointed in some ports, but have had no work to do. In others (notably at London and Liverpool) the law has been ignored altogether, and up to the present moment no inspectors exist. But the authorities at Grimsby form a creditable exception to the rule. Their inspector, Mr. Moody, is appointed by the Board of Trade, and we are very glad to report that during the past month more than two hundred seamen have been officially inspected at this port. It would be well for the Board of Trade to require their inspector to furnish them with a list of the men rejected, and the causes of such rejection. If these were properly reported and published for the benefit of ship-owners, ship-captains, and Lloyd's, we believe that all would see the advisability of making this system of inspection compulsory, instead of permissive. We regret very much that at this late period of the session there is little hope of introducing such a clause in the Merchant Shipping Acts Amendment Bill, now under discussion in the House of Commons.

LYTHAM COTTAGE HOSPITAL.

A NEW building, erected by J. Talbot Clifton, Esq., for the purpose of a cottage hospital, has lately been very generously made over, in perpetuity, to a committee for the free use of the inhabitants of Lytham. It is situated at the eastern end of the town, on the bend of the Ribble inland, and the site affords advantages on account of the pure breezes shorewards. There are two wards on the ground floor, one for males, and the other for females; and here accommodation is afforded for half-a-dozen beds. Above stairs there are two additional wards, divided in the same manner, and the accommodation is thus increased by other four beds. On the ground floor there are also rooms for the matron and committee, a bath-room, surgery, kitchen, and washhouse. In the yard at the rear of the premises is a mortuary, and an operating-room for cases of severe accident. The surgery is replete with the necessary instruments and appliances; and the entire range of rooms have been very comfortably, even elegantly, furnished by the donor. The foundation-stone of the building was laid in September last. Mr. Henry Littler drew the plans for the hospital from a sketch by Dr. Holland, of Prestwich Asylum. The premises stand on ground extending from two to three acres, which is being neatly laid out in lawns and flower-beds. The building, furnishing, and fitting, have involved an outlay of about £1200. The medical department is under the superintendence of Dr. Luke Fisher. There was a large attendance at the opening ceremony, performed by Mrs. Clifton, and there is every reason to hope that the hospital may prove of great utility to the poorer classes of the neighbourhood.

DR. BENNETT'S GRADUATION ADDRESS.

DR. HUGHES BENNETT, though somewhat open to the charge of obliquely lecturing literary and clerical men for their ignorance of science, and especially of physiology, through the new graduates, did quite right in urging upon the graduates the duty devolving upon them of doing all they can to further the educational movement, and especially education in physiology in schools and among all classes. He was perhaps a little too hard upon the clergy, who really are quite alive to the bad science of Addison's beautiful hymn. But they will sadly lose power in society if they do not more take into account the whole nature of man, and the great dignity of his body. "The great fact," says Dr. Bennett, "on which our religion was founded was not the immortality of the soul, but the resurrection of the body, first manifested in our Saviour." Undoubtedly Dr. Bennett is right in encouraging medical men to regard themselves as great public teachers, whom nations will have to respect more and more if they are to realise the highest blessings of civilisation, and avert very great national calamities.

MR. SIMON ON THE LORD PRESIDENT'S MEDICAL BILL.

IN his Report just issued, Mr. Simon alludes with his usual clearness and felicity of words to the Bill of last year, over the defeat of which he still seems to sigh with a feeling of paternal loss. He thus describes the two main objects of the Bill. One, that the many authorities which at present confer licence for professional practice shall for the future only confer such licence by acting conjointly with one another in their respective divisions of the United Kingdom, under co-ordination by the General Medical Council; and the other, that in future there shall not be given any licence for professional practice which does not imply (to the required minimum amount) qualifications in both medicine and surgery. In subsequent observations Mr. Simon criticises the opposition to the Bill, first from those who aimed at altering the constitution of the General Medical Council, and secondly from the universities, which objected to the eighteenth clause as limiting their privileges. We will not be cruel enough to our readers to go over the battle again and slay the slain, and we will not say anything more unkind of Mr. Simon than this, that he can produce a far better Bill than that of 1858. To amalgamate the bodies for purposes of examination, and to leave their individual representation in the Medical Council intact, was a course at once inconsistent and inconvenient; and special and objectionable precautions had to be taken against the evils of it.

METROPOLIS WATER BILL.

THIS Bill, affecting the health and pockets of over three millions of people, was passed through the important stage of committee in a House of less than fifty members in the small hours of Wednesday morning. Notwithstanding a long list of amendments which had been placed on the notice paper, the Bill now stands virtually the same as amended by the Select Committee, and it therefore remains open to the objections we have already urged against it. The treatment of sanitary questions by the present Government is fairly illustrated in the history of this Bill.

THE OBSTETRICAL SOCIETY.

AMONGST the useful works projected by the Obstetrical Society is, the collection of specimens of the pelves (male and female) of the various races, together with, if possible, fœtal heads at term; also the collection of abnormal female pelves, or casts; the collection of histories, drawings, or photographs and descriptions of abnormal pelves, where it is not possible to procure the pelves or casts of them. To carry out this work a Pelvis Committee has been appointed. It has been suggested that, as the vacation will be scattering the Fellows of the Society in various directions, they might lend material aid to the Committee, and at the same time attain a pleasant and instructive motive for their wanderings, if they would undertake to visit such museums and collections as may fall in their way, taking note of the objects of interest they contain, and opening communications with the authorities with a view to procuring casts, photographs, descriptions, &c. Gentlemen about to start on their tours, who may wish to help in this way, are invited to write to the secretaries, Dr. Wiltshire and Dr. Heywood Smith, for instructions and introductions.

THE ADMISSION OF IMBECILES TO THE METROPOLITAN ASYLUMS.

IT is quite necessary that the attention of the Poor-law Board should be drawn to the mode of transferring paupers from workhouses to the new asylums at Caterham and Leavesden. It is well to remember that every inmate of a workhouse, not suffering from contagious disease, is at liberty to leave on giving a reasonable notice to the master; whilst the inmates of the imbecile asylums are forcibly detained. If, as Mr. Chandler states, persons are sent there, and deprived of their liberty, who are only of weak mind and unable to get their living, such persons are most unfairly dealt with. And some colour is given to this statement by the fact that a case of a deaf-mute has just been discharged from Leavesden who, in the opinion of the Committee, ought to have been sent to a school or an institution. All the patients ought to be examined by a magistrate and medical practitioners, as in the case of admission to the ordinary asylums for the insane.

PUBLIC VACCINATION IN SCOTLAND.

AN article on vaccination, sensible in the main, lately appeared in the *Scotsman*, urging the duty of the State to see that vaccination is well performed; and slightly *hobbyish* on the risk of conveying other disease than vaccinia through the instrument employed, and on the propriety of using a special instrument not used for other purposes. A most interesting part of the article is that in which the writer quotes from the reports of the Board of Supervision, reprinted in Oliver and Boyd's Almanack, to the effect that about 4000 out of 100,000 are operated on every year by the vaccinators in their official capacity—that is to say, about four children for each of the 1100 vaccinators! What do the admirers of 500 cases to a public vaccinator say to this statement? Scotland is confessedly a well-vaccinated country; and yet, according to the writer of this article, the action of the State, or of the local authority, is almost *nil*.

HOLIDAY.

AUGUST reminds us of our annual duty of enjoining holiday upon our readers. The clergy know the wisdom of making themselves scarce for a month or six weeks in the year. But medical men, as a class, are strangely insensible to the necessity of change and suspension of work. Perhaps, we may say quietly, they love work more than other professional men. Now and again we meet even with men who say, "Why should I take a holiday? I am never happier than when I am working and at my post." Such men are no rule. It may be said, without fear of contradiction, that no work is more laborious and exhausting than that of medical men, and none more imperatively needs to be interrupted. The bugbear of losing patients is to be disregarded. Good, that is considerate, patients like their doctor to have a holiday, and patients that are not considerate should not hinder a duty which a man solemnly owes to his family and to himself.

REMOVAL OF SMALL-POX PATIENTS.

MEDICAL MEN should really exercise some discretion in sanctioning the removal of small-pox patients to hospital. Last week an inquest was held on the body of a child which was found dead in the cab on its arrival at Stockwell Hospital. It transpired that the mother had been prematurely confined only the day before, and it is more than probable that the labour was induced by the small-pox poison. The woman was in a bad state, and she was not accompanied by any female. It is not surprising to hear that the mother died next day, but it is surprising to find that it was not considered necessary to hold an inquest.

ROYAL COLLEGE OF PHYSICIANS.

WE understand that Dr. Arthur Farre will deliver the next Harveian oration; that Dr. Quain has been appointed to the Lumleian and Dr. Wilks to the Croonian lectureships respectively; and that the youngest of the new Fellows, Dr. Hensley has, according to rule, been offered, and has accepted, the office of Gulstonian lecturer for next year.

DR. BALLARD has resigned the medical officership of health for Islington, and has received an appointment in the Medical Department of the Privy Council. Dr. Ballard's work at Islington has been characterised by thoroughness and enthusiasm; and his resignation will cause general regret to the inhabitants and to his medical brethren. The profession will remember his recent able investigation into the peculiarly localised distribution of an epidemic of typhoid corresponding to a certain milk-supply, and will join us in congratulating the Medical Department on the addition of a good workman to its staff.

SEVERAL changes have taken place at St. Mary's Hospital. Dr. Handfield Jones, F.R.S., has been appointed Lecturer on Clinical Medicine, in the place of Dr. Sibson, F.R.S.; and Mr. Spencer Smith Lecturer on Clinical Surgery, in the place of Mr. Samuel Lane. Dr. Broadbent has been appointed co-Lecturer with Dr. Chambers on the Principles and Practice of Medicine; and Mr. Gascoyen co-Lecturer with Mr. James Lane on Surgery. Dr. Nunneley has been appointed Lecturer on Histology and Experimental Physiology.

ON Thursday their Royal Highnesses the Prince of Wales Prince Arthur, and Princess Louise and the Marquis of Lorne, paid a lengthened visit to St. Vincent's Hospital, Dublin. Cardinal Cullen and other clerical dignitaries who are connected with the institution introduced the Royal visitors to Drs. Mapother and O'Leary, who conducted them through the various wards.

MR. RAWLINSON, C.B., in reference to the daily average of 468,002 tons of sewage pumped into the Thames from the Crossness and Barking works, remarks that this represents the waste of above £1000 worth of manure per day, according to the farm value of sewage.

THE deaths from small-pox in London declined last week to 87, the lowest number returned in any week since the middle of last December. On the other hand, the fatal cases of diarrhœa have risen in the last four weeks from 64 to 225, and of simple cholera and choleraic diarrhœa from 4 to 18.

A PARLIAMENTARY RETURN (No. 348) shows that during the three years 1868–70 there were 140 deaths in the metropolitan districts in respect of which coroners' juries have returned verdicts of "death from starvation" or "death accelerated by privation."

THE Lincoln Local Board have employed Mr. Lawson, C.E., to prepare a scheme of sewerage and sewage outfall and utilisation for that city.

OUR readers will peruse with great regret the sad account of a fatal accident which occurred to a member of our profession in Settle, noticed in our obituary column.

THE THIRTY-NINTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

Held at Plymouth, August 8th, 9th, 10th, and 11th, 1871.

AFTER visiting for three successive years cities in the more northern section of England, the British Medical Association has this year betaken itself to the extreme south, and selected the great naval port of Devon as the rallying-point for its members. Plymouth—or, to speak more strictly, the united towns of Plymouth, Devonport, and Stonehouse—has for centuries been one of the great centres of naval activity, for which it is especially suited by its advantageous position on the capacious bay or *sound* formed by the estuaries of the rivers Plym and Tamar. From a medical point of view Plymouth is well deserving of notice, since it possesses, both from official and private sources, institutions of the greatest merit, which cannot fail to have interested the numerous medical visitors attracted to its hospitable walls. The South Devon and East Cornwall Hospital at Plymouth has for thirty years done good work, which has been emulated by the Royal Albert Hospital at Devonport, opened in 1863. The Military Hospital at Stoke has an imposing appearance with its arcade of forty-one arches; whilst the Naval Hospital at Stonehouse, built in 1762, is remarkable as being one of the earliest specimens of "pavilion" hospitals, of which type the Lariboisière at Paris and the new St. Thomas's Hospital are familiar examples. In addition to these larger institutions, Plymouth boasts a Public Dispensary, established in 1798; a Provident Dispensary, founded in 1869; and a Royal Eye Infirmary, with eighteen beds.

Plymouth is remarkable as being one of the naval and garrison towns in which the provisions of the Contagious Diseases Acts have been fully carried out, and with the very best results. On the foundation of the Royal Albert Hospital, the Admiralty arranged with the committee that a certain number of beds should be maintained at the public expense for the reception of diseased prostitutes under the voluntary provisions of the Act of 1864; and it was because the provisions of this Act were found insufficient in practice that the more stringent enactments of 1866 and 1869 were carried. No unprejudiced person can doubt the good effect which has been produced by the careful and judicious enforcement of the Acts in question, not only on the health of the army and navy, but on the health and welfare of the unfortunate class who come under their provisions. The quiet and order which reign in the streets of Plymouth now are very different from the state of things a few years back; and both the clergy and the laity of the district are almost without exception in favour of the continuance of the Acts, against which an ignorant clamour has been so recently raised.

The Council of the British Medical Association could not have acted more wisely than by selecting Mr. John Whipple, F.R.C.S., as the President for the Plymouth meeting. His position as a leading practitioner, and his popularity with his professional brethren and the public, were sufficient to ensure a warm reception for the members of the Association, even if he had not had the hearty co-operation of Mr. Square, Dr. Littleton, Mr. Swain, Dr. Rolston, Dr. Clay, Mr. May, Mr. Bulteel, and others. One prominent feature of the meeting was the "Annual Museum," brought together under the management of Mr. Henry Greenway, who devoted much time to the details of the undertaking, and had drawn up a catalogue of the contents of the Museum which was printed in a convenient form, and placed in the hand of each member. The contents of the Museum were divided into six sections as follows:—1st. The latest Inventions in Medical and Surgical Instruments and Appliances of every kind. Also for the special Exhibition of Ancient and Modern Fracture Apparatus, or Diagrams of such, thus setting forth the history of the treatment of fractures from the earliest records down to the present day. 2nd. New Drugs and their preparations. 3rd. New Articles of Diet for Invalids. 4th. Pathological Specimens; also Photographs, Casts, &c., illustrating disease. 5th. New Works on Medicine, Surgery, &c. 6th. Models or Drawings, or any object of professional interest not included in any of the above sections. Space does not allow of our giving a *résumé* of the various objects of interest exhibited, but we may say that surgical instruments and apparatus were contributed by most of the leading instrument makers, and also by various medical men; that the collection of drugs was valuable and instructive; and the pathological series, both as regards specimens and drawings, reflected the greatest credit upon the contributors and the management by which they had been brought together.

On Monday, a few members of the Association put in an appearance, and foremost amongst these were the "Irish contingent," consisting of Dr. Beatty, Dr. Macnamara, and the Rev. Professor Haughton, of Dublin. These two last gentlemen came by steamer direct from Dublin, and experienced the perils of the deep both in their own persons and in being eye-witnesses of the wreck of two vessels, fortunately without the loss of any lives. Amongst the members present at the meeting, we noticed the following:—Dr. Anstie, Mr. W. E. Adams, Dr. Aveling, and Dr. Barnes, of London; Mr. Alfred Baker, Birmingham; Dr. Beatty, Dublin; Mr. J. W. Baker, Derby; Mr. Christopher Bulteel, Stonehouse; Mr. Robert Cecly, Aylesbury; Dr. Clay, Plymouth; Dr. Chadwick, Leeds; Dr. Charlton, Newcastle-on-Tyne; Mr. Matthew Coates, Devonport; Dr. Davey, Bristol; Mr. John Elliott, Knightsbridge; Dr. Wilbraham Falconer, Bath; Mr. William Husband, York; Mr. Charles Hooper, Aylesbury; Mr. Southam, Manchester; Dr. Radclyffe Hall, Torquay; Mr. Heath, London; Mr. Clement Hawkins, Cheltenham; Dr. George Johnson, London; Mr. Robert Kerswill, St. Germans; Mr. Lund, Manchester; Mr. M. B. Liddon, Taunton; Dr. J. C. Longmore, London; Mr. Littleton, Saltash; Mr. M. R. Moore, Albert Hospital, Devonport; Mr. J. May, jun., Stoke; Mr. C. J. Maunder, London; Mr. Wm. Martin, London; Mr. J. S. May, Plymouth; Dr. Nankivell, Torquay; Dr. Row, Devonport; Dr. A. B. Steele, Liverpool; Mr. T. Heckstall Smith, St. Mary Cray; Mr. P. W. Swain, Stoke; Mr. W. J. Square, Plymouth; Mr. Steele, Plymouth; Dr. Sibson, London; Dr. Underhill, Tipton; Dr. Edw. Waters, Chester; Dr. Wade, Birmingham; Mr. S. S. D. Wells, H.M.S. *Ganges*; Mr. R. W. Woollcombe, Stoke, &c. &c.

The public business of the Association did not begin until Tuesday evening, and the early arrivals had, therefore, time to become acquainted with some of the lions of the neighbourhood both inanimate and living; for we must not omit to mention that, fortuitously, the annual meeting of the West of England Horses and Dogs Show had been fixed to be held at Plymouth synchronously with the more scientific meetings of the Association. The dockyard and arsenal afforded scope for those of a mechanical turn; the sound and breakwater offered objects for those of a nautical tendency; whilst the beauties of the surrounding country attracted others who preferred to exchange the turmoil of cities for the *dolce far niente* of country life.

The first general meeting was held on Tuesday, Aug. 8th, at 8P.M., Dr. Charlton (Newcastle), President for the past year, in the chair. A deputation from the Corporation of Plymouth was introduced by the mayor, Mr. Serpell, and a congratulatory address was read by the Town Clerk, Mr. Whiteford. Dr. Charlton made a short speech in acknowledgment of the compliment. Dr. Charlton then delivered a brief valedictory address, and gave a short account of the incidents of his year of office. He remarked that medical reform had been hoped for, but in this the Association had been disappointed. The Government had left the matter in the hands of private members, but the result had only confirmed the belief that no reform would be acceptable to the profession which did not recognise a "single-portal system," and also give representation to the main body of the profession. Dr. Charlton then introduced Mr. Whipple, of Plymouth, as the President of the meeting, with a few well-turned phrases of laudation.

Mr. WHIPPLE, F.R.C.S., assumed the President's chair amid considerable applause, and delivered his

INAUGURAL ADDRESS.

He commenced by remarking that with an inaugural address of that description there must ever be a certain amount of difficulty in the selection of a subject. So many branches of science invariably presented themselves to the mind's eye, on either of which it would be tempting to dilate, that it became a bewildering task, if not an invidious compromise, to discriminate between their respective claims. The dilemma could only be successfully evaded by the simple process of rejecting both alternatives, and by wandering away to other scenes, where might be found some neutral spot unassailable by either objection. Surely no one could cavil at the soundness of that political economy which recommended emigration to a more distant locality, when the homestead was overstocked, and the neighbouring district tenanted by more enterprising and better qualified competitors. Should any other apology for his selection of Plymouth as the subject of this address be deemed necessary, he should simply rest it on personal and professional grounds. He would pay a grateful tribute alike to the town itself, and to the strangers it welcomed, by reminding them that they were treading on historic soil, and that there were many special features of interest associated with its past history, which were too often forgotten in the whirl of present sensation, or were shorn of their real value by the curious yet fashionable propensity of subordinating home scenes and English antecedents to those of a purely foreign extraction. On the other hand, professional experience abundantly testified that the mind cannot bear too heavy a strain, or digest at once more than a fair proportion of substantial or stimulating diet. Keeping that in view, he found his course more accurately defined. It was to send them forth to the duties and details of their respective sections with their digestive faculties unwearied, and their mental grasp unimpared by any homœopathic treatment of his own. If it were true that the science of agriculture depended much on a due application of the rotation of crops, they should not be far wrong in adapting a similar principle to an analogous field—the human mind. In both cases the sure condition of an ultimate return was a judicious appreciation of, and a proper deference to, those elements which might not inaptly be termed the surface and hidden depths of their respective systems. As with the field so with the mind, a summer's fallow might have its advantages, and the crop of sprightly tares turn out no mean preparation for an ample yield of weightier cereals. Mr. Whipple then proceeded to give a succinct and interesting sketch of the history of the town from the earliest period down to the present day. Special reference was made to the Elizabethan period. Carew said of it, "Here mostly have the troops of adventurers made their rendezvous for attempting new discoveries and inhabitancies; as Thomas Stukeleigh for Florida, Sir Richard Grenville for Virginia, Sir Humphry Gilbert for Newfoundland, Sir Martyn Frobisher and Master Davies for the North-west Passage, Sir Walter Raleigh for Guiana." Thus, in the field of geographical exploration *facile princeps*, Plymouth might well rest satisfied with such associations were there not other considerations, practically of greater value, which really outvied them. If it were a far higher effort of genius to consolidate the fruits of victory than to organise a superficial and resultless triumph over hostile combinations, the pioneers of the colonial system—those men of iron will and daring hardihood who first settled in the newly discovered continent—must ever occupy a loftier niche in the temple of fame than even those hardy adventurers who ploughed a pathway through the waste of waters to its unknown shores. It was from Plymouth, and under the auspices of Devonshire men in the reign of Elizabeth, that the first colonising expeditions set sail; and though they were not successful in the attempt to form permanent settlements, yet it was from these sources that they traced those subsequent results which had had such a marked influence on the destiny and civilisation of the whole world. But not only in the comparatively peaceful field of adventure did Plymouth win its laurels at this era. These were portentous times—times without a doubt when British alarmists had no unsubstantial grounds for gloomy prognostications. And the thunder-crash came at last. England must be annihilated; and with the haughty arrogance of assured victory the gigantic Armada was launched forth for its destruction. He need not dwell on the oft-told tale of ambition crushed, and the Invincible destroyed. Let him rather introduce them to a scene which, striking in itself, might, from its local associations, not be so familiar as the sterner details of history to the majority among them. In the year 1588 there was a great gathering at Plymouth. Men had not met together to wander hand in hand in peaceful rivalry over the fertile field of science. They had met for action—sharp, prompt, and decisive; and there was an unmistakably rough and ready look about them which was exactly in keeping with their purpose. If they failed to detect it at that present moment, let them rather congratulate themselves on an alteration of circumstances than indulge in querulous repinings on the evidence of national decay. But the Armada was expected then, and the British fleet was lying in Catwater. For a nation that somehow had the reputation of never being exactly ready for an emergency, it was satisfactory to remember that on this occasion a fleet was actually prepared, and impatiently waiting for the expected collision. At Plymouth were assembled all those great captains of the age whose renown is imperishable—Raleigh and Sheffield, Grenville and Howard, Francis Drake and John Hawkins, Martyn Frobisher, John Davis, and a host of others on the watch for earliest information with respect to the movements of the hostile armament. Somewhere about the site of the present citadel, there stood in those days the Pelican Inn, very likely so called after Drake's famous ship wherein he circumnavigated the world. Behind it was a small bowling-green, where in friendly pastime they could wile away the long, tedious hours of their protracted suspense; whilst in front of it they could command a magnificent view of the sound, and descry the earliest approach of friend or foe on the distant horizon. And there the men on whom England relied in her hour of extreme peril were actually collected—thus were they engaged when the long-anticipated intelligence of the Armada's approach at length arrived. How they acted in the emergency was aptly illustrated by Drake's terse rejoinder—"There is time enough to play the game out first, and thrash the Spaniards afterwards." Passing on to the time of the Civil War, Mr. Whipple remarked that Plymouth's stubborn and consistent support of the Parliamentary cause was entitled to praise for its unwavering fidelity. Pointing next to the quick declaration of the town in favour of William of Orange, and the foundation of Plymouth Dock, he referred his hearers for further information to Worth's "History of Plymouth," a work published by an author to whose research he was personally indebted for much information. As a matter of medical interest, however, he called attention to the fact that the pavilion system of constructing hospitals, now so much in vogue, had its origin at the Naval Hospital at Stonehouse more than one hundred years since, which was spoken of by M. Zenon in 1777 as the most perfect then existing. Mr. Whipple concluded by saying:—"Such an assemblage as the one before me must leave its mark on the future history of Plymouth, if it be instrumental in calling our attention to those shortcomings of which we are wilfully ignorant or tacitly conscious. Once recognise our defects and a most important step has been taken towards their amelioration. That there is nothing so successful as success is a truism we cannot refute; but success, be it remem-

bered, is never so permanent as when it is evoked from the ruins and established upon the basis of an admitted failure. If this result be attained by your co-operation, either in awakening our emulation, or in giving an impetus to latent talent, as yet crippled and confined from its never venturing to soar beyond mere local associations, or from its shunning the friction which can only give it an enduring polish, it will add the element of permanency, though not an increase of cordiality, to the welcome which I now bid you to Plymouth."

Dr. SIBSON proposed a vote of thanks to the late President, Dr. Charlton, for his services during the past year. Dr. RADCLYFFE HALL seconded the resolution, which was carried by acclamation.

Dr. CHARLTON returned thanks for the compliment paid him, and regretted that opportunity for doing more for the Association had not fallen to his lot.

The Hastings medal was then presented to Dr. J. M. Fothergill, of Leeds, for his essay on Digitalis, the President making a few appropriate remarks upon the value of the paper in question. Dr. Fothergill returned thanks.

Mr. WILLIAMS, the Secretary, then read the Report of the Council of the Association.

REPORT OF THE COUNCIL, 1871.

"Your Council congratulate the members of the British Medical Association on meeting together for the first time in the important maritime town of Plymouth.....The Council beg sincerely to acknowledge the energetic efforts which have been made to receive the Association, and to render its visit to Plymouth and the associated towns highly gratifying, not only as respects its scientific, but also its social objects.

"At the annual meeting in 1870, there were on the list 4251 members, of whom 65 have died, 94 resigned, and 106 have been removed for non-payment of subscriptions. 411 new members have been elected this year. There are now 4397 on the books.....

"The Reform Committee, appointed at the last annual meeting at Newcastle, will present a special report of its proceedings during the past year. This Committee have strictly adhered to the principles enunciated, and repeatedly endorsed, at the general meetings of the Association. From circumstances which will be detailed in its report, medical legislation has been found impracticable during the present session of Parliament, but the Committee are of opinion that the field has been cleared for action, and that arrangements have been made which it is hoped will conduce to a settlement of the long-vexed question of medical reform before the next annual meeting of the Association.

"The Parliamentary Committee, having been reconstituted in accordance with the instructions of the last general meeting, have been quietly but effectively discharging their functions during the present session of Parliament, and will present a report of their proceedings.

"The Joint Committee on State Medicine will present a report—a report which deals closely with recommendations of the Royal Sanitary Commission, and the principles that should regulate the future sanitary administration of the kingdom, subjects full of interest both to the medical profession and the public, and which will doubtless occupy a prominent place in the deliberations of the meeting.

"The Therapeutical Committee have been at work during the year; they have performed a large number of experiments, and collected much valuable matter, but are not yet prepared to report the result of their labours.

"For the very efficient working of the branches thanks are due to the honorary secretaries of the branches of the Association.

"Your Council especially thank Dr. J. W. Moore of Dublin for the very valuable and efficient services he has rendered to the Association as Honorary Secretary for Ireland, especially as he has had to act on his own responsibility, without the aid of a Council in Ireland.

"Your Council record with much pleasure the establishment of a new branch in South Wales, which promises to bring together all the members of the medical profession in that part of the kingdom.

"The mode in which the business of the Association has been carried on, and especially the absence of supervision over the business and monetary transactions of the *Journal* Office, which has now become a very important department of the Association, has for some time been far from satisfactory. Your Council must here, however, acknowledge the efforts which Mr. Hart has made since his reappointment as editor to bring about a more satisfactory management, and the important assistance which he has rendered in ascertaining the defects which prevail, and the changes required for their removal; but they felt that they could not ask him to continue the supervision of the *Journal* Office, which on his first appointment was less extensive, and which is truly no part of the duty of an editor. The Committee of Council therefore, in November last, appointed a sub-committee to consider and suggest means for improving the organisation and business-working of the Association. The sub-committee met in London soon after, but few members attended; and the inquiry having elicited, among other matters, that from want of supervision at the *Journal* Office, the clerk and collector had been able to misappropriate a large sum of money, and then abscond, it was determined to report to the Committee of Council that the inquiry was a most important one, and that, in their opinion, a larger committee, comprising the most active and experienced members of the Committee of Council, should be appointed. The Committee of Council at once decided not to depute the inquiry to a sub-committee, but meet in London, and inquire fully into the general management and financial position of the Association.

"The Committee of Council met in London on the 3rd and 4th of last May, and after a full and searching inquiry, which extended over many hours of these days, and receiving every information from the officers of the Association and the employés of the *Journal*, unanimously passed the following resolution:—'That the management of the Association having been found, on inquiry, to be in an unsatisfactory state, owing chiefly to defective organisation and supervision, it is recommended that for the future the general secretary should reside in London, and that he shall devote his whole time and attention to the management and work of the Association.'

"Your Council, although fully recognising that the Association owes much to their present secretary for the energy which he has displayed in increasing the number of its members, are fully convinced that the amount of Association work done *at*, and the large sums of money passing *through*, the *Journal* office, imperatively demand a personal supervision of that office by a responsible officer, and that the duties of secretary of the Association, and the management of the office, so interwoven with each other, should be performed by the same officer. When this change has been effected, the list of members can be more accurately kept, and a more regular payment of subscriptions ensured by maintaining a more correct account of subscriptions received and due, and thus carrying out a more systematic and correct application for arrears. The regular circulation of the *Journal* can also be thus more efficiently maintained, and many other irregularities, consequent on the present arrangements, now complained of, removed. Your Council therefore recommend that in future the general secretary shall reside in London, so that, in addition to the duties now required of him, he shall give personal attention to, and be responsible for, the management of the financial and business department of the *Journal* office. The president of the Council has, at the request of the Committee of Council, given formal notice of the alterations which may be required in the laws, if you think proper to adopt the change now proposed in the duties of the general secretary.

"The annual accounts of your treasurer, to whom the Association owes so much, have year by year been audited and published in the *Journal*. From time to time, too, estimated balances have been printed with the treasurer's accounts, and it was thought desirable by the Committee of Council at their last meeting, in consequence of the defalcations by the office clerk and collector at the *Journal* office, that the exact financial position of the Association should be ascertained by an accountant; such special audit has been made, and a printed copy of the result is now placed in your hands. Although a deficit is there shown, owing nearly entirely to the misappropriation of moneys at the *Journal* office, yet this deficit will be wiped off during the present year by the saving to the funds of the Association which will arise from the lower rate of postage for the *Journal*. Your Council also trust that an improved system

of management and a more regular collection of subscriptions will soon place the finances of the Association on a satisfactory footing, especially if members will assist by a more regular payment of their subscriptions.

"Your Council deeply regret that five of their most distinguished associates have determined to sever their connexion with the Association. The cause of their retirement is well known to you all, and your Council can only express their deep regret, and their fervent hope that ere long, when that cause shall have passed away, they may again be united to the Association.

"Your Council regret that it has been their duty to refer to unpleasant facts, and to recommend changes which they would fain have avoided. They have felt, however, that the allegiance they owe to the Association, and their deep solicitude for its wellbeing, left them no alternative. But they are fully persuaded that a body which has gained so powerful an influence over the profession, and possesses a *Journal* which is recognised, both at home and abroad, as one of the ablest exponents and representatives of medical science, will suffer no permanent injury from these passing trials, which, rightly improved, will conduce to its better management and the increase of its future prosperity."

The Treasurer's report showed that the income of the Association in 1870 was £5261 16s. 2d., including a balance in hand of £13 7s. 11d.; the expenses £5223 13s., leaving a balance with the Treasurer of £28 3s. 2d.

Mr. HUSBAND, of York, as President of the Council, moved the adoption of the report. Alluding to the retirement of the "five members," he said that, though he regretted it, he preferred consistency in the views always maintained by the Association to retaining them. He explained that the defalcations of the collector occurred only last November, and were immediately investigated by a sub-committee. This found that there was want of supervision in the office of the *Journal*, and hence the Committee of Council agreed to propose to transfer the secretary to London, and to give him the management of the office. Mr. Husband proceeded to combat by anticipation the opposition which he foresaw to this from the idea that the metropolitan was about to supersede the provincial element in the Association. He thought the secretary and the editor of the *Journal* should be entirely independent of each other in his own department, but that it was essential for the welfare of the Association that the changes proposed should be carried out.

Mr. HECKSTALL SMITH, in seconding the motion, defended the Committee of Council from any imputation of neglect of duty. The Association was always provincial, but the time came for centralisation when the *Journal* was first printed in London, and the want of centralisation of the management was responsible for the mischief which had occurred.

Dr. DAVEY, of Bristol, said the Committee of Council had now told the truth, which they should have told years ago. There had been absence of supervision for years. At Leeds he had proposed reforms which were met by threats.

Dr. Sibson and Dr. Stewart here gave a point blank denial to the statement, and, amid cries of "Name," Dr. Davey said that the speaker in question was the treasurer. Thereupon Dr. Falconer emphatically denied that he had ever made use of any threat of the kind, and amid considerable confusion, Dr. Davey resumed. He wished to extend the representative system in the Committee of Council by enlarging it. He proposed to alter one paragraph of the report; but Mr. Husband rose to order, and pointed out that the Council alone had power to alter their own report.

Mr. CLAYTON, of Birmingham, said that the Committee of Council had done everything for the best welfare of the Association, and not for their own aggrandisement. He had carefully gone through the accounts, and thought the proposed changes were essential.

Dr. SIBSON said there was but one wish on the part of the managers of the Association—to promote the welfare of the Association—and endeavoured to throw oil on the troubled waters. He had thought the whole question over most carefully, and the proposals of to-night were the growth of years. He believed that no plan but the one proposed could be safely carried out.

Mr. STEELE, of Liverpool, asked a question respecting the balance-sheet.

Dr. FALCONER explained that the estimated assets did not include the receipts for advertisements.

Mr. GAMGEE said he wished the report could have been modified so as to be received unanimously. The Association appeared to be a joint-stock company calculating the profits of a weekly periodical, rather than a scientific Association. He believed that for years the management of the Association by the Committee of Council, had been very indifferent, but that was no reason for having a non-professional secretary in London. We hear much of direct representation of the profession in Parliament, but the Association was allowed little or no direct representation in the Council of the Association. The Council at present was a sham, since the report was really the report of the Committee of Council. He should vote against the report.

The reception of the report was then put and carried by a large majority.

Mr. HUSBAND proposed that the election of a Secretary *ad interim* should be left to a committee until the next annual meeting, when the election might be confirmed or otherwise. He then proceeded to move various alterations in the laws of the Association, of which notice had been given. One or two were carried apparently as a matter of course, in a meeting which, by this time, had become very thin, when it was suggested that at that late hour all the alterations should be voted *en masse*. Mr. LIDDLE made a vigorous protest against this, but Mr. Husband pressed it, and the motion was eventually carried.

The Report of the Medical Benevolent Fund was presented, and the meeting adjourned.

On Wednesday a public breakfast was held at the Royal Hotel, Devonport, after which the members dispersed to visit the dockyard (where H.M.S. *Agincourt* was an object of general interest), to inspect the Royal Albert Hospital, and to witness the parade of the troops.

At eleven o'clock the Second General Meeting was held in the Town Hall, Devonport, when a congratulatory address was made by Mr. Joseph May, F.R.C.S., the Mayor of Devonport, and the Town Clerk, Mr. T. Woolcombe, read an address from the Corporation, and Mr. Whipple, the president, returned thanks.

It was then announced that Birmingham had been selected as the place of meeting for 1872, and that Mr. Alfred Baker was the President elect. Mr. Baker briefly returned thanks for the honour.

Mr. HUSBAND, the President of the Council, referred to the election of a secretary, and announced that the Committee of Council had agreed that Mr. Williams should continue in office for the remainder of the year at £200 instead of £150 for the half-year. He proposed a vote of thanks to Mr. Williams for his past services of eight years. Dr. Falconer, the treasurer, seconded the motion, which was carried after a few words in support from Mr. Gamgee and Dr. Stewart.—Mr. Williams briefly returned thanks.

Dr. GEORGE JOHNSON then delivered the Address in Medicine.

In the afternoon the Sections of Medicine, Surgery, and Midwifery concluded their sittings at the Royal Hotel.

In the evening the members of the Association were entertained at a brilliant *soirée* by the President, Mr. Whipple, at the Royal Hotel.

On Thursday the third General Meeting was held at the Royal Hotel, when Professor Lister delivered the Address in Surgery, the subject of which was "The Antiseptic System of Surgical Treatment." The following is a telegraphic summary:—The Professor gave a *résumé* of Pasteur's theory and of his own published experiments, and referred to those of Tyndall. A beam of light showed that dust existed inside empty flasks, which, on standing for a fortnight, became optically empty, owing to the subsidence of the particles. Prof. Lister had employed cotton wool, impregnated with antiseptic vapour, as filters, and he demonstrated a mode of dressing with cotton wool and with antiseptic guaze. He uses spray of carbolic acid of the strength of 1 to 100 parts, and he showed a pump for using the spray. In amputation, catgut ligatures practically give no evidence of the presence of a foreign body. The Professor then detailed some experiments on waterproof protective dressing. He had found shellac and india-rubber

gave a beautiful material impermeable to carbolic acid. He believed that ligature of the femoral artery with catgut treated antiseptically is less dangerous than an exposed cut finger. He narrated successful instances of two operations for irreducible hernia, for ununited fracture of the femur, and for the extraction of loose cartillage. The Professor concluded with general deductions.

In the evening the Public Dinner of the Association was held in St. George's Hall, Stonehouse, and, thanks to the catering of Mr. Swain, proved a great success.

ABSTRACTS OF PAPERS READ IN THE SEVERAL SECTIONS.

Dr. E. J. TILT read a paper "On Hysteria and its various Interpretations." He began by remarking that writers on hysteria might be divided into two groups: a comparatively small group of writers, who owned their ignorance of diseases of women, and who nevertheless affirmed that uterine affections had nothing to do with hysteria; the contrary doctrine being held by the great majority of writers, those who were admitted to be thoroughly acquainted with diseases of women. The author quoted from the lectures of Dr. King Chambers, Dr. Russell Reynolds, Dr. Handfield Jones, and Dr. Hyde Salter, to show what was taught respecting hysteria by those little conversant with diseases of women. He then showed how this ignorance on the part of the leaders of the profession, and the teachers in public schools, injuriously affected their own interests, the welfare of their patients, and the advance of medicine. Dr. Tilt objected to identify hysteria with lust, and also to the too common practice of calling hysterical any inexplicable symptom that may occur in women. Lastly, the author explained hysteria as the product of an indispensable predisposition to emotion on the part of the brain, and some determining cause. This determining cause was said to be sometimes one of those debilitating influences that aggravate all nervous affections. Sometimes the cause is the disturbed action of one of the abdominal viscera, the reflex centres of our emotions, diseases of menstruation, in which slight structural diseases of the ovary find expression, and the mildest forms of uterine disease being given as the most frequent determining causes of hysteria. Dr. Tilt's conclusions were—(1) that to be efficient leaders of the profession and teachers in our public schools, hospital men should be thoroughly acquainted with diseases of women; (2) that whenever it is a question of hysteria, the state of menstruation should be carefully ascertained, and the sexual organs accurately examined when they present signs of disease; (3) that the best way for neurologists to disperse the cloud that still obscures our knowledge of hysteria, catalepsy, and epilepsy, is to study the pathology of the ganglionic nervous system.

Dr. CORNELIUS B. FOX read a paper "On the Estimation of Atmospheric Ozone by means of Aspirators and Acids." The author, having pointed out the great importance of estimating correctly the amount of ozone present in the air, if we would ascertain with certainty whether or not an excess or deficiency of this allotropic modification of oxygen is in any way connected with disease, proceeded to comment on the chaotic and inexplicable condition in which all ozone records are involved. The mode of estimating ozone which has been hitherto generally adopted appears to be liable to the following sources of error:—I. Impurity of chemicals employed. II. Impurity of paper employed. III. Ozonometers faulty in construction. IV. Formation of the iodate of potash. V. Bleaching and fading of the coloured tests. (1) From formation of the iodate of potash; (2) from presence of *true* antozone in the air; (3) from volatilisation of the iodine set free, in consequence of (*a*) a rapid current of air, (*b*) an excess of moisture in the air, (*c*) a high temperature. VI. Changes in the force of the wind. Brodie and others consider Schonbein's antozone to be a myth, whilst some German savants have recently proved that it is simply the binoxide of hydrogen. Dr. C. Fox believes in the existence of an antithetical state of the air, and describes both the atmospheric conditions under which it occurs and its effect. This principle he names *true* antozone, to distinguish it from Schonbein's antozone, with which it has hitherto been erroneously identified. The various errors above enumerated, of which the formation of the iodate of potash is one of the greatest, are then shown to be easily obviated. This colourless salt, into which much of the iodine set free by the ozone is often converted, he decomposed by the application to the tests of tartaric acid in the form of spray, so that the whole of the metalloid may be estimated. The error arising from the changes in the force of the wind is also avoided by the use of aspirators, by means of which a certain amount of air is made to pass over the tests at a certain velocity. The two forms of aspirators which have been employed for this purpose having been adverted to, a third kind of an improved construction, which has been devised and employed by Dr. C. FOX, was then described. As the author considered that *truthful* answers to such questions as the following—Have an excess or deficiency of atmospheric ozone or true antozone any effect on the public health? If so, what is the nature of this influence? What is the effect of epidemics on their amount?—are of immense interest to the whole medical world, he proposed that a committee be appointed by the British Medical Association to inquire into the merits and feasibility of the new scheme.

"On the different therapeutic indications of Rheumatism and Neuralgia, together with some remarks on Rheumatism as a sequela to Diphtheria." This was the title of a paper by Mr. D. DE BERDT HOVELL. He said that both rheumatism and neuralgia are conditions of ill-health attendant on low or depressed nerve-power; both are highly susceptible of pain. In rheumatism the first object is to eliminate the lactic and other allied acids from the blood, and to reduce the excess of fibrine; in neuralgia, on the other hand, to supply the deficiencies of the blood, adopting the opinion of Dr. Bence Jones, that the absence of quinoidine is the cause of malarious neuralgia. A similar plan of treatment is called for in the neuralgia of exhausted nerve-power, in that of old age, and from organic disease. Both diseases are liable to aggravation from intestinal irritation, and neuralgia from carious teeth and other forms of diseased bone. In both diseases the susceptible condition of the nervous system calls for relief by some form of narcotic, &c. Acute rheumatism has frequently been observed to follow diphtheria, in which case it is important to ascertain that the urine is free from albumen before adopting the blistering treatment of Dr. Herbert Davies. Assuming that there is excess of fibrine in the blood in diphtheria as well as in rheumatism, cantharides has been found to check elimination by the kidneys, and so to aggravate the symptoms, especially the cardiac complications. In this class of case iodine and the iodide of potassium are specially advocated.

Mr. CHRISTOPHER HEATH read a paper "On the Treatment of Stone in the Female Bladder," illustrated by three cases which had occurred in his own practice. The first case was in a patient aged thirty-two, who was subjected to lithotrity, a stone weighing four drachms, composed of phosphates, with a nucleus of oxalate of lime, being removed in five sittings with complete success. The second case was in a married woman aged forty-nine, in whom a large stone was readily felt per vaginam. Vaginal lithotomy was performed, and a stone of an ounce and a half and measuring two inches by an inch and a half was readily removed, the wound being closed immediately with six silver sutures passed through the entire thickness of both vaginal and vesical wall. The patient made a rapid and complete recovery without the formation of any fistulous opening. The third case was that of a child aged eleven, in whom the urethra was rapidly dilated and a small stone extracted, when there was found to be a much larger mass fixed to the bladder, which was removed with difficulty after being partly broken up, the whole mass weighing nine drachms. The child had incontinence for a few weeks after the operation, but eventually recovered complete control over the bladder. Mr. Heath briefly contrasted the three proceedings, maintaining that rapid dilatation of the urethra within certain limits was a perfectly harmless and most useful practice. He advocated lithotrity for moderate-sized stones in the adult, but for large stones preferred vaginal lithotomy with immediate closure of the wound, a proceeding which experience had proved to be remarkably successful.

Mr. G. SOUTHAM, F.R.C.S. (of Manchester), read a paper "On Excision of the Tongue." After making some remarks on cancer of the tongue, Mr. Southam referred to the difficulty which surgeons frequently experienced in excising the entire organ, or even a large portion of it, for this affection. The safest mode of removal is that by the écraseur, but this instrument frequently fails to effect the purpose in conse-

quence of the shape of the tongue, and the peculiar arrangement of the muscles, causing the chain of the écraseur to slip towards the diseased portion, in which it often becomes embedded before the operation is completed. Some cancerous deposit is therefore left, and, though it may not be in sufficient quantity to interfere with the healing of the wound, usually leads to an early return of the affection. To remedy this defect in the operation, Mr. Southam has had constructed a pair of forceps with a movable hinge, which completely grasps the tongue at its root, and confines the action of the écraseur to the part where it is first applied. A case was described in which with this instrument, and without making an opening in the floor of the mouth to pass the chain through, the tongue, of which the body was affected with cancer, was excised beyond the foramen cæcum and circumvallate papillæ, these structures being included in the separated portion.

"Supplemental Mechanical Force during Parturition, regulated by a Dynamometer," was the subject of a paper by Dr. PROTHEROE SMITH. After some allusion to the physiology of labour, and to the agents of force exercised in parturition—viz., that of the voluntary and involuntary muscles—the author spoke of the injurious consequences when the normal balance of these powers was disturbed, specially marking the distinction between the capabilities of the uterus and of the trunkal muscles, to obviate which, as well as to subsidise the power at fault, he advocates the judicious employment of an artificial force, according to certain rules, by means of his "obstetric pelvic band," which was described and exhibited. The peculiarity of this instrument is that it forms, with the pelvis itself, as it were a solid basis, which, by virtue of its immobility, allows the accoucheur easily to employ the required aid to assist and expedite expulsion, and so, by following the natural movements, manifestly to shorten the period of labour and to lessen its risks. This is regulated by a dynamometer, described and illustrated by a drawing. It is so constructed as to measure and record accurately the force employed, imitating the normal throes when wanting, especially by interrupted efforts like those constituting "the compound character" of such pains. In demonstration of this, Dr. Protheroe Smith narrated a case of labour in which such means were employed, with the result. In this, each pain, as well as the amount and duration of every artificial effort is recorded, and some valuable calculations and observations were appended from the pen of Professor Haughton of Dublin, from which it appears that the force used in parturition is much greater than is generally supposed by obstetricians.

Mr. S. M. BRADLEY, F.R.C.S. (of Manchester), read a paper "On the Unity of the Syphilitic Poison." Mr. Bradley commenced by showing that in order to demonstrate the unity of the syphilitic poison it was necessary to produce a soft sore upon a virgin subject by direct inoculation from a hard, infecting sore; to produce, in other words, a sore indefinitely capable of auto-inoculation, but never followed by constitutional symptoms, from a sore which was (very generally) incapable of auto-inoculation, and which was followed by constitutional taint. He went on to say he had made numerous experiments to ascertain whether this interchange did or did not ever occur, and with the results which are now made public. His subjects were monkeys, kittens, and guinea-pigs; the virus he employed was obtained from cases of syphilis met with in private practice in the Lock Hospital, and in the venereal wards of the Manchester and Chorlton Workhouses. He obtained the matter for inoculation by scraping the surface of the sore prior to cicatrisation, with either a piece of glass or an ivory vaccination point. The great majority of the experiments gave negative results. In two instances, however (one in a guinea-pig, and one in a kitten), the inoculation was followed after the interval of two or three weeks by local thickening at the site of puncture, and later by the outbreak of constitutional symptoms. The guinea-pig died within a month from the commencement of thickening, with disorganisation of one eye, and extensive ulceration about the mouth and soft palate; in the kitten killed at the end of the eighth week were found gummata in kidney and liver. Omitting failures, and the two cases of syphilis mentioned above, he obtained three successful results, the details of which were given. In these experiments, the initial lesion was never irritated by any application; Mr. Bradley merely used the secretion obtainable from the surface of the untreated sore. When the sore was irritated by savine, it was comparatively easy to procure abundant and, as a rule, readily inoculable pus. He never succeeded in obtaining positive results with matter taken from a phagedænic sore, or with scraping the surface of one* which was entirely void of all secretion. Mr. Bradley proceeded to draw a parallel between the two forms of syphilis and the evolution of the vegetable parasites, or epiphytes; alluding to the fact that all the fungi infecting the human subject are interchangeable, and mutually producible, and yet, as a clinical fact, it was well known that this interchange took place but very rarely,—it seemed probable to him, indeed, that the same causes which operated in this low region of the vegetable kingdom (i.e., differences in the soil and in the age &c. of the seed) were also the efficient causes in determining the character of the syphilitic sore, although we were not yet in a position to decide the precise force which each of these causes possesses.

Dr. MORELL MACKENZIE read a paper entitled "Growths in the Larynx: the comparative advantages of Laryngoscopic treatment, and direct Incision into the Larynx." He stated that the relative advantages of these two methods must be considered in relation (1) to the quickness of cure, (2) completeness of removal and probability of recurrence, (3) danger to life, and (4) restoration of voice. From an experience of 100 cases treated, a month was estimated to be the average duration of laryngoscopic treatment. External treatment, on the other hand, required only a fortnight. As regards the second question, complete removal was able to be effected in 97 per cent. of the cases which underwent the full course of laryngoscopic treatment, and recurrence took place in about 7 per cent. In 28 cases of direct incision, collected from all sources, 10 died in a short time, and in the remaining 18 the growth was incompletely removed in 3 cases, and recurrence took place in 3 cases, or, in other words, in 20 per cent. As regards danger to life, no death occurred in the laryngoscopic cases, whereas of the 28 treated by external operation, 3 immediately terminated fatally, 6 died at the end of a few months, and 1 from an independent disease. With reference to restoration of function, perfect voice was regained in 77 per cent. of those who underwent laryngoscopic treatment, and a more or less serviceable voice was restored in 16 per cent. Of the 18 patients who survived direct incision more than a few months, only 9* completely recovered their voice, 4 had persistent hoarseness, and 6 permanent aphonia. Consideration of the above statistics establishes the permanent value of laryngoscopic methods of treatment, and justifies one in saying that extra-laryngeal treatment ought never to be adopted unless there be danger to life from suffocation or dysphagia.

Dr. DAVEY's paper on "Jenner and his Teachings," is designed to prove, from the early writings of Jenner, that we, of this day, have failed to practise vaccination after the manner, or rather in the light, of the first great teacher of the art; that we have ignored the preliminaries to which he attached very much importance, and have fallen therefore out of the path along which Jenner travelled to reach the success he did, but which we, of this day, fail to realise. If we accept the statement made by Dr. Davey, it follows necessarily that Jenner's practice was very much unlike what our own is at this time, and that, in both theory and practice, the practitioner of the day must have fallen away from the teachings of the famous physician of Berkeley. If Jenner doubted (as it is affirmed he did) the virtue of the vaccine lymph after even five gradations, that is, after its passage through but five persons or children successively, and if he then thought it prudent after only five gradations to seek other and fresh lymph from the cow or heifer, it becomes us to ponder awhile over the very dissimilar views so generally entertained, as well as on the practice which these views beget. But, according to the Jennerian aspect of the whole question, we are led to believe that other and deeper causes for the altered or diluted and comparatively valueless quality of the vaccine lymph now too much in use, exist.

* These cases are tabulated in the Thyrotomy table in author's "Essay on Growths in the Larynx." In this table, however, the result of Case 27 is entered as "not stated," but since the publication of the volume Dr. S. Cohen has informed the author that the result was "complete restoration of voice."

The teachings of Jenner prepare us to accept as indispensable, for the production of a pure, fresh, and trustworthy vaccine lymph, whereby to insure the safety of our patients from the variolous contagion, the aid of the horse. The grease from his heel, but taken before it has lost its early pellucidity, was, we are assured, the mainspring or starting-point of that virus on which Jenner relied to carry all those he vaccinated secure from the possible invasion of small-pox through the period of their natural lives. The same grease it is, according to Jenner himself (or so says Dr. Davey), which, in its passage through the cow, is converted into what is the only reliable antidote to that most terrible of all contagions—small-pox. Assuming the above to be an exposition of Jenner's views and teachings in regard to this all-important subject of vaccination, no time can be so opportune as this present to ask the best attention of medical men to them.

Dr. J. H. AVELING read a paper "On the Value of Arsenic in Menorrhagia and Leucorrhœa." He believes that this remedy has not received from the profession the attention it deserves. Dr. Henry Hunt used it successfully in uterine disorders, and published his experience in 1838. Dr. Aveling has employed it in cases of menorrhagia for twelve years with great advantage. Besides improving nutrition, respiration, and secretion, he finds it to have a powerful decongestive action upon all mucous membranes. He administers small doses of arsenic either in solution or in granules, and continues them for weeks or months, as the necessities of the case may require. He believes the forms of menorrhagia and leucorrhœa most amenable to the arsenic treatment are those which have their origin in a hyperæmic condition of the uterus, which state the remedy cures by acting as a tonic and stimulant upon the vasomotor nerves, causing the capillaries to contract and expel the superabundant blood.

Dr. ALFRED MEADOWS read a paper "On the Treatment of Fibroid Tumours of the Uterus," in which he combated the notion that these growths can be in any way diminished in size, still less cured, by any known therapeutical agent. Discussing the question from a histological point of view, he felt convinced that it is impossible to procure the absorption of any part of the solid constituents of these tumours; at the same time he showed that there is ample scope for the exercise of the greatest skill in the medical treatment of such cases, especially in regard to the two most constant and important symptoms—viz., hæmorrhage and pain. The chief object of the paper was, however, to advocate more frequent resort to surgical treatment. The author expresses his belief that much more might be done in many of these cases than has been hitherto. Even in the subperitoneal variety he thought that, in cases where much distress exists, abdominal section ought to be resorted to more frequently; while in the interstitial and submucous forms, it ought to be the rule in practice always to endeavour to assist Nature in her method of cure—viz., by expulsion. For this purpose three objects should be kept steadily in view. 1st. That all obstruction should be removed by freely dividing the cervix in several directions. 2nd. That the tumour should be separated from its attachments, not necessarily all at once, but by successive stages. 3rd. That as far as possible continuous uterine action should be maintained by the exhibition of ergot and other oxytoxic agents. A case was cited in illustration of the value of this combined method of treatment.

Dr. CLIFFORD ALLBUTT, in a paper on "The Lesions of Enteric Fever as an Occasional Cause of Permanent Injury to Nutrition," drew attention to the convalescence from enteric fever, which is well known to be often so tedious; and he raised the question whether the specific lesions of that disease, affecting as they do the instruments of absorption, might not sometimes be the cause of permanent marasmus. In enteric fever the local mischief falls not only upon the patches of Peyer in the ileum, but spreads itself throughout the network of the mesentery. If a rat be fed upon tallow candles and then killed, the presence of the fat in great quantities in the mesenteric network and glands shows how active is that system in taking up this element of nutrition. Any disease, therefore, which interferes with this system, like enteric fever within it, or chronic peritonitis outside it, would have its visible effect in hindering the absorption of fat and in preventing the laying on of adipose tissue. These considerations occurred to the author in consequence of his advice being sought in several cases of marasmus, pure and simple, without local disease, without fever, and without adequate loss of appetite. In all of these a severe attack of enteric fever had preceded the marasmus. The patients, who were almost denuded of all adipose tissue, had, previous to the attack of enteria, been in good health. The only explanation which he could give of these cases was, that the fever had acted upon the fat-collecting system in the way already pointed out. The notes of six cases of this kind were then read, but in one of these the marasmus had been preceded, not by enteria, but by a protracted affection of the bowel, improperly named dysentery.

Dr. WYNN WILLIAMS read a paper "On the Treatment of Cancer of the Neck of the Uterus and Allied Structures by the Injection and Application of Bromine." The author commenced by making some remarks on the spontaneous removal of malignant tumours, from the study of which he was led on to the injection of bromine into cancerous tumours of the uterus and other parts. He stated that the eight cases published in the last volume of the Obstetrical Transactions still continued well. He entered into full details as to the manner of injecting these deposits and the care required in the use of bromine both as an injection and application, and that before its use the surrounding parts should be well protected by a solution of soda. He exhibited the various instruments he had had made for the injection of bromine. He gave the history and successful treatment of a well-selected case of medullary carcinoma of the uterus in the state of disintegration and ulceration by this method. He also gave the particulars of a case of epithelioma of the lower lip which had been previously removed by operation. On the return of the disease the patient was sent to Dr. Wynn Williams, who, by two injections of bromine, caused the entire and, so far, permanent removal of the disease. A vignette of the patient was exhibited.

Dr. BRAXTON HICKS read a paper "On a Rare Form of Hæmorrhage." After quoting the remarks of Dr. Blundell on a form of concealed hæmorrhage, caused by the falling down of the membrane, and consequently the retention of blood within the uterus, he brought forward three cases in which, the membranes remaining attached all round the lower portion of the uterus, and blood being effused between the upper part of the uterus and the membranes and margin of placenta, the membranes and a portion of the placenta were inverted so as ultimately to be driven through the os into the vagina some distance, imitating the bag of membranes in a twin-case after the birth of the first child. The uterus in the meantime became distended with blood, and serious symptoms arose without any sign externally. The treatment was pointed out, and some short remarks made on the mode of expulsion of the placenta.

Dr. BRAXTON HICKS also described four cases of Acute and two of Chronic Inversion of the Uterus, following each case by remarks on the causation, prevention, and treatment. He showed some apparatus he had devised for the restoration of chronic inversion, consisting first of india-rubber pessaries, and then of an apparatus to keep up constant pressure on the fundus, a simple kind of which he had found successful.

Dr. BARNES exhibited an enlarged drawing, taken from a specimen recently put up at St. Thomas's Hospital, which showed, with an accuracy probably unique, the anatomical characters and relations of Hypertrophic Elongation of the Cervix Uteri. The entire length of the uterus was seven inches. The two lips of the os uteri were much hypertrophied, somewhat everted, and formed a large mass external to the vulva. The whole vagina was everted to clothe the protruded mass. The retro-uterine pouch of the perineum was extended so as to be outside the vulva. The value of the preparation was great, as giving a typical illustration of a not uncommon affection, the relation of all the parts being accurately preserved.

OPPOLZER'S SUCCESSOR.—The Council of the University of Vienna have elected Dr. Bamberger to the chair of clinical medicine, left vacant by the death of Oppolzer. The Minister of Public Instruction, however, requested the Council to cancel this election, as Bamberger is not an Austrian. The professors have sent in a resolution, stating that Dr. Bamberger is the only man fit to succeed Oppolzer.

THE CHEMISTRY OF TEA.

THE May number of Liebig's *Annalen* contains a paper, by Zöller, on Tea, from which we abstract the following:—

It used to be believed that the different kinds of tea came from different species of the tea-plant; but the researches of Siebold, which have been confirmed by Fortune, have demonstrated that one and the same plant, *Thea siensis*, modified by climate, soil, and cultivation, furnishes all the tea which is in the market. Differences in the manner of preparing the leaves, and differences in the age of the leaves, also affect the quality of the tea; giving rise to differences in the commercial article.

Touching the influence of climate, it is worthy of note that the tea-plant will bear a wide range of climatic variation without suffering serious deterioration. The richness of the soil and the mode of cultivation, however, exercise a paramount influence on the quality of the tea. In this respect the tea-plant is like the tobacco-plant or the mulberry-tree.

Again, the method of preparation of the leaves is a comparatively trivial matter, whilst the age of the leaves is of prime importance. The youngest leaves give the best tea. Hence the explanation of the high price of choice varieties of tea. Choice teas consist of the youngest leaves, and to produce any considerable weight of young leaves a great number of plants is required; whilst the same weight of old or full-grown leaves is produced by a comparatively small number of plants. Zöller shows that the age of tea-leaves may be ascertained by a chemical examination of the ash left on incinerating them. As the leaves grow they lose in potash and phosphoric acid, both absolutely and relatively, and gain in lime and silica. Examinations made at periods fourteen days asunder exhibit these phenomena with sufficient distinctness. In the practical examination of teas there is, therefore, a very simple and valuable rule: much potash and phosphoric acid together with little lime and silica means good tea, and the reverse bad tea.

Having received a splendid specimen of tea grown in the Himalayas by a friend of Baron Liebig's, Zöller set to work and made a chemical investigation of it, and obtained the following results. In 100 parts of the tea there were 4·95 parts of moisture, and 5·63 parts of ash. The ash contained in 100 parts—

Potash	39·22
Soda	0·65
Magnesia	6·47
Lime	4·24
Oxide of Iron	4·38
Protoxide of Manganese... ...	1·03
Phosphoric acid	14·55
Sulphuric acid	trace
Chlorine	0·81
Silica	4·35
Carbonic acid	24·30
Total	100·00

These numbers show very plainly high potash and phosphoric acid, together with low lime and silica. Zöller also made an infusion of this excellent specimen of tea, and communicates some interesting particulars. 100 grammes of the leaves was infused for a quarter of an hour in 3 litres of boiling distilled water, and the liquid poured off. Then a second 3 litres of boiling water was poured on the leaves and allowed to stand for a quarter of an hour. The 6 litres of infusion were subsequently evaporated to dryness, and the residue dried at 100° Cent. and weighed. This dry residue was found to amount to 36·26 per cent. of the original tea-leaves; the remark being made, that in the above described operation the tea-leaves could not have been perfectly exhausted of soluble matter, and that the real proportion of soluble matter in the leaves must have been still higher than the experiment indicated.

The tea-leaves in their ordinary, or air-dried, condition contained 5·38 per cent. of nitrogen. The percentage of thein in the leaves was found to be 4·94. Theobromine was also detected.

A comparison of the analysis of the original tea-leaves with that of the tea-leaves after they have been exhausted with boiling water is given. After extraction, the percentage of potash in the ash is 7·34, whereas, before extraction, the percentage of potash was 39·22; showing how the analysis of the ash may be employed as a criterion to recognise adulteration of tea with spent tea-leaves. A point insisted upon in this interesting memoir is, that the greater proportion of the nitrogenous material in tea is not present in the form of thein. Peligot has shown that this other nitrogenous material is a protein compound, being a substance like casein. Tea is therefore, to some extent, food, and Zöller points out that 100 parts of Himalaya tea contain, in addition to the 4·94 parts of thein, 13·7 parts of protein compounds.

THE MEDICAL CLUB.

THE last of the monthly dinners for the season took place at the Club on Wednesday last, on which occasion Dr. Swettenham, Deputy Inspector-General, occupied the chair, supported by Sir William Fergusson, Sir Charles McGrigor, Dr. Cogswell, Dr. Sabben, Alderman Sidney, Mr. Dunlop, Dr. Peter Allen, and a large party of friends.

The Chairman, in proposing the toast of "Success to the Club," remarked that to the vigorous manner in which this toast had on all previous occasions been received might in some measure be attributed the present satisfactory position of the Club. That position he considered, from his own daily observation, to have been attained by the exercise of economy and good management, a matter of no little congratulation to the members now that the Club had entered the sixth year of its existence, and had stood firmly whilst so many contemporary and more pretentious ones had collapsed. On the part of the Committee, he proceeded to state the reasons which had induced them to recommend that the Club should for the present be continued in Spring-gardens. Every effort had been made to secure a better house, and Dr. Marsh thought he had obtained this in Pall-mall East; when, however, that building came to be surveyed, it was found that it could not be rendered so commodious internally as the house in Spring-gardens, even although a large sum were expended in alterations. He referred with pleasure to the fact that many members who had retired from the Club were coming back, and he hoped that the new printed list now being prepared for issue would show further additions, not only from old members returning, but also from new ones joining the Club. The next occasion of their assembling together would be at the commencement of the ensuing session, on the completion of the alterations of the premises, when it was proposed to hold an opening banquet under the presidentship of their distinguished and popular chairman, Sir William Fergusson.

THE BIRMINGHAM REPORT ON THE PURIFICATION AND UTILISATION OF SEWAGE.

THE Corporation of Birmingham are now subject to two injunctions, one obtained by Sir C. B. Adderley in reference to the pollution of the river Tame, and the other by Mr. E. Davenport, in reference to a nuisance arising from works at Saltbury, where an attempt is made to convert the solid portions of the sewage into manure. Thus driven into a corner, the corporation have sought the services of Mr. J. J. Blackburn, of the Camp Farm, Aldershot; Mr. J. Chalmers Morton, one of the Rivers Pollution Commission; Drs. Voelcker and Hill, chemists; and Messrs. Lawson and Mansergh, civil engineers. These gentlemen, having consulted together, have just presented their report, and we would venture to recommend its perusal to the members of other corporations similarly placed, as containing an exhaustive treatment of the questions submitted to them. The committee of the Birmingham Corporation have also submitted their report. After the most careful consideration, and having obtained the assistance of the most

competent advisers, they have concluded: (1) that the best if not the only efficient mode of purifying and utilising the sewage is by applying it to the land in a liquid state; (2) that they must have powers to purchase land; (3) that the Council should obtain from 2000 to 2500 acres of land for the purification of the sewage; (4) that the lands north and west of the river Tame are most suitable for the purpose; (5) that it is probable many of the farmers on the routes of the main conduits may hereafter use a considerable quantity of sewage, and thus save the Council the expense of taking additional lands; (6) that the Council should not become farmers, but should take the position of landlords, laying out the land for advantageously receiving the sewage, and letting it, by lease or otherwise, to farmers, market gardeners, and others. The valuable character of the sewage is proved by Messrs. Voelcker and Hill, as also the effect of irrigation. The estimated cost of land and irrigation works for 6410 acres is £275,000; but as it is not proposed to irrigate more than 2000 acres at first, the outlay on this head will be very much less. We believe the Birmingham Corporation has taken the right course. They have consulted the best men, and will, no doubt, carry out the scheme proposed.

POPLAR AND STEPNEY SICK ASYLUM.

THIS Asylum, which was opened a few days since, is one of the most perfect hospitals erected under the provisions of the Metropolitan Poor Act, 1867. The hospital occupies four acres and a half, at Bromley-by-Bow, in the very midst of the population for whose use it is intended. It is erected on the pavilion system. There are eight separate blocks, all of which are connected by a corridor 10 ft. wide and upwards of 600 ft. long. Above this is a covered way, and at the top an open terrace, all of which will be of the greatest value in providing a pleasant ambulatory for the convalescents. The building has a remarkably pleasant aspect, the brick being enriched with stone dressings. In the centre is the water tower, and hot-water apparatus. There will be accommodation for nearly six hundred patients, each of whom will have from a thousand to fifteen hundred cubic feet of space. The nurses sleep and mess away from the patients. No pauper nurses will be employed, and there will be an adequate night service. The chapel contains sittings for one hundred and ten persons. The walls are "dinged" in lieu of being plastered; they are coloured of a grey mauve above, and painted buff below. The windows are all fitted with Venetian blinds. The wards are 117 ft. long, 21 ft. wide, and 14 ft. high. There are two large ventilating grates in each ward, opposite windows, &c. The foul air is withdrawn by a number of separate up-cast shafts, built in the chimney stacks. Similar shafts are also built in the end walls. Provision has been made for further warming by hot water should it be found necessary. The lavatories, bath-rooms, closets, &c., are all that can be desired, and the hospital is effectually drained. It is believed that this most perfect hospital has been erected at about one-tenth the cost of St. Thomas's.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

THE authorities of the Queen's Hospital have come to the sensible conclusion that cases of small-pox must be received as well as typhus and scarlatina, but, with a view of preventing contagion, have decided on altering part of the old Birmingham Rectory which has recently come into their possession, so as to fit it for the reception of four or six patients. If more than that number of beds should be required, the surplus will have to be accommodated in the present detached building for contagious cases.

The Working Men's Fund for the extension of this hospital has now, at the end of two years and a half, reached £5465, of which sum £3472 has been contributed by artisans, the rest being subscribed by benevolent persons desirous of assisting the movement. At present, out of the 5000 manufactories of Birmingham, subscriptions have come in from only about 500, so that it is clear the working classes are not, as a body, giving the support to an institution specially designed for their relief that they ought to give. The fund is to be closed in about six months, and we may hope by that time it will be sufficiently large to meet the cost of the greatly wanted out-patient department, if not of the accident wards and other offices in connexion with it.

The Registrar-General's Quarterly Return for the three months ending June last, just published, is founded on the new estimates of population arrived at by the recent Census. The estimates till lately in use were considerably in excess of the actual numbers, more particularly in Portsmouth, Hull, and Birmingham. The death-rate of Birmingham in the last quarter was 23·2 per 1000, and the increased number was due to an epidemic of measles; small-pox, though met with in isolated cases, only caused four deaths, and all these were returned as unvaccinated.

It is gratifying to find that the Privy Council have recognised, in a substantial form, the efficient manner in which vaccination has been carried out in Wolverhampton; £140 is to be distributed among the three public vaccinators of that town.

An unfortunate accident has occurred here by the hands of an unqualified assistant of Mr. Hoare, of Aston-road. An old man, whose ribs were broken some weeks ago, was under the treatment of Mr. Hoare, and was taking a linctus for his cough, and using an aconite liniment to his side. The linctus was doing him good, so he sent for some more of it; but the assistant, by some mistake, gave him liniment in the linctus bottle. The patient took a small quantity, hardly a teaspoonful, and died two hours after. At the coroner's inquest, Mr. Jolly, who had made the post-mortem examination, gave evidence that the man had great fatty degeneration of the muscular tissue of the heart, so that his death might have occurred at any minute. No verdict will be given until Dr. Hill, the borough analyst, has had an opportunity of examining the contents of the stomach.

A musical festival has just been held in the noble church of the village of Solihull, to assist in the building of the Midland Counties Middle-class Idiot Asylum. This institution, which owes its origin to the energy and public spirit of Dr. Bell Fletcher, the senior physician of the General Hospital, has been in existence on a small scale for about five years, and is now about to be extended. A new building, to cost £10,000, is to be erected at Knowle, and already several thousands have been collected towards the sum required. The festival, which extended over two days, was largely attended, and the result will probably prove an addition of four or five hundred pounds to the charity.

The election of resident surgeon to the Children's Hospital took place on Monday last, when Mr. Alf. Whitehead, late senior resident surgeon of the Queen's Hospital, was appointed by a large majority. The votes were, at the suggestion of Dr. Heslop, taken by ballot, as he considered that it was unfair to the candidates (of whom there were six or seven) that their success should depend in any manner on the eloquence or rhetorical artifices of movers and seconders.

A poor man, just recovering from modified small-pox, has, at the instance of the Board of Health, been fined 1s. and costs for exposing himself at Wolverhampton while the subject of that disease. The fine was mitigated in consequence of the man asserting that he was starving, and was obliged to go to a provision shop because no one would get food for him.

Birmingham, August 9th, 1871.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

CAPPING DAY has again returned. The ceremony took place to-day, in the Music Hall, and was one of more than usual brilliancy. The large hall was crowded with ladies and gentlemen attracted not only to witness the graduation of their medical relatives and friends, but to see honorary degrees conferred on many gentlemen of scientific renown from various countries. The Lord President, the Chancellor of the University, presided. The honorary degree of LL.D. was conferred on the following gentlemen:—Thomas Andrews,

F.R.S., Belfast; Prof. Pierre J. Van Beneden, University of Louvain; Dr. Carpenter, F.R.S., University of London; Prof. Challis, Cambridge; Auguste Colding, Denmark; James Prescott Joule; J. J. Sylvester, lately Professor at Woolwich; Prof. G. G. Stokes, Cambridge; Prof. Allen Thomson, Glasgow; W. Spottiswoode, F.R.S.; Dr. G. E. Paget, President of the General Medical Council; Dr. William Huggins, F.R.S.; Jules Janssen, Member of the Academy of Sciences, Paris; and John Peter Gassiot, F.R.S. The Degree of M.D., under the new statutes, was conferred on twenty-one gentlemen, and under the old regulations on two. For that of M.B. and C.M. there were sixty-one candidates. For M.B. alone there were nine candidates. The Medalists were Drs. James Cumming and Urban Pritchard. The latter also received the Ettles Prize of the value of £40. The degree of M.A. was conferred on Mr. J. W. Pringle. Prof. Bennett, as promoter of the Medical Faculty, on this occasion delivered the concluding address.

At the dispensary in the afternoon, Mr. Brudenell Carter, of London, gave a demonstration of the interior of the eye by means of a new ophthalmoscope. The arrangement of the mirrors, rest, &c., is new, and is of French origin. By means of this ophthalmoscope, several cases were demonstrated in a very admirable manner to a numerous meeting of professional gentlemen who had been invited to be present by Drs. Walker and Argyll Robertson, all of whom agree in expressing their high satisfaction with Mr. Carter's method of demonstrating the diseases of the interior of the eye in the cases submitted to examination. For class demonstration this ophthalmoscope is excellently suited; and, from the ease with which it can be used, commends itself to the favourable consideration of those interested in the diseases of the eye. The profession here are indebted to Mr. Carter for giving them an opportunity of seeing this ophthalmoscope in use.

There is some possibility that the name of "Scott" may also be connected with our Alma Mater. The sub-committee on the question of the most suitable memorial as a permanent record of the "Centenary," recommend the providing of a "Scott Hall" for academic ceremonies. For this purpose at least £15,000 will be necessary; with the assistance of a Government grant, the committee think the scheme could be carried out, and have approved of the recommendation generally.

The British Pharmaceutical Conference opened here to-day in the Craigie Hall; Mr. W. Stoddart, of Bristol, presided. The meeting was well attended. The report of the Executive Committee was very favourable; about 300 new names have been added to the roll during the last year. The members now number 1878. After discharging all liabilities, there is a balance in hand of £50. The President delivered an address, and various papers were read. It was agreed to meet next year in Brighton. In the evening, a conversazione, under the auspices of the Conference, was held in the Museum of Science and Art, at which between eleven and twelve hundred ladies and gentlemen were present. The Conference meets again on Wednesday.

Edinburgh, Aug. 1st, 1871.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

A NEW BULLET EXTRACTOR.

AN instrument has been lately devised by Dr. Kennedy, of this city, for the purpose of facilitating the removal of bullets from wounds. It consists of a probe, formed of two parallel needles of platinum, which lie closely side by side, but are not in contact, owing to one of them being sheathed in silk, which acts as a non-conducting material. With this probe, as soon as the bullet is reached, the outside ends of the needles are connected by means of screws respectively with the positive and negative poles of a voltaic battery, the leaden bullet completing the voltaic current. Now it is a property of lead and platinum when in contact to be fused together by an electric current passing from one to the other, and then to make a solder. The bullet, therefore, is fused with the probe, and is removed by withdrawing the latter from the wound. Experiments have been made, and so far have proved successful, and it seems probable that this ingenious method will be an important aid to surgical practice in the treatment of gunshot injuries where the bullet remains in the wound.

HEALTH OF DUBLIN.

From the Report of the Registrar-General for Ireland for the quarter ending July 1st, I find that the births registered in Dublin during that period amounted to 2189, being equal to an annual ratio of 1 in 35, or 28 in every 1000 of the population, by the late census; and the number of deaths to 1880, affording an annual ratio of 1 in 41, or 24 in every 1000. Of these deaths, 309 occurred in the various hospitals, prisons, and lunatic asylums; 139 in the North Union Workhouse, and 191 in the South Union Workhouse, making a total for public institutions of 639, or 34 per cent. of the total deaths. The principal causes of death were as follows:—Phthisis, 277; bronchitis, 247; convulsions, 114; fever, 108; heart disease, 78; scarlatina, 50; hydrocephalus, 49; pneumonia, 49; whooping-cough, 48; liver disease, 44; kidney affections, 36, including 12 from Bright's disease; mesenteric disease, 33; croup, 30; aneurism, 9; diphtheria, 4; and 34 deaths resulted from accidents, 2 from homicide, and 3 from suicide. The mean temperature of the air for the quarter was 52·6° Fahr., and the rainfall measured 5·371 inches for the quarter.

SMALL-POX IN BELFAST.

The Sanitary Committee of the Belfast Workhouse state that 50 cases were reported during the month, 20 of which were removed to the Union Hospital; but although there has been an increase of this disease during the past month, yet the general health of the town is good, and the mortality from small-pox inconsiderable.

Dublin, August 1st, 1871.

Obituary.

SIR JAMES FREDERICK PALMER, M.R.C.S.,

LATE PRESIDENT OF THE LEGISLATIVE COUNCIL OF VICTORIA.

WE have to record the death of a member of the profession who has been for many years "out of sight" but not "out of mind" of those who knew him. Sir James Palmer died on April 23rd last, at his house at Barwood-hill, near Melbourne. He was the son of a Devonshire clergyman, and was born in 1804, his grandmother being a sister of Sir Joshua Reynolds, his aunt, the well-known "Hetty Palmer," the favourite niece and companion of Sir Joshua, whose portrait, by her uncle, was sold a few weeks ago in London for upwards of seven hundred guineas, exactly a century after it was painted. Sir James Palmer was an articled pupil of Mr. John Gunning at St. George's Hospital, became a Member of the College of Surgeons in 1826, and married that gentleman's daughter in 1832. At that hospital it was formerly the custom that an articled pupil of one of the surgeons was almost always chosen when a vacancy in the staff occurred. But this rule had been broken through of later years, and when Mr. Palmer's turn came, finding he should not receive the support of the medical staff, he declined to offer himself as a candidate. At that time, about 1840, a vacancy occurred at Charing-Cross Hospital, when he entered into a contest with Mr. Hancock. He was not successful. This, and the state of his wife's health, induced him to retire from the profession. He had previously been surgeon to the St. George's and St. James's Dispensary, and in 1837 he, with the late Mr. G. Babington, of St. George's Hospital, Professor Owen, and Mr. Bell, edited Hunter's works, the well-known edition in four volumes.

Like Sir Charles Nicholson, Sir Rutherford Alcock, and others, upon retiring from the practice of his profession he turned his attention to a wider field of work. In 1840 he settled at Melbourne, Australia. His active and energetic mind was soon at work. He was returned as a member of Parliament for Melbourne to the House of Representatives at Sydney; but he was anxious that the colony he had chosen as his home should have a Legislative Assembly of its own. This was eventually accomplished, and he was at once chosen as one of the representatives. In 1851 he was

elected speaker of the Legislative Assembly, and in 1856 first President of the Legislative Council (the upper chamber). This important post he held until compelled to retire, about a year ago, on account of ill-health. In 1857 he received the honour of knighthood. This is not the place to enter into the history of his life after he left the profession; but we have stated enough to show how he worked, and how he was estimated by those with whom he laboured. Sir James Palmer never had any children, and leaves a widow. He published a work on "The Devonshire Dialect," and although he never practised his profession after he left England, he took much interest in all the medical institutions in his new country, particularly the Melbourne Hospital.

E. S. GREEN, L.R.C.P. EDIN.

A GENERAL gloom has been cast over the neighbourhood of Settle, in consequence of the melancholy accident which occurred last Tuesday week to Mr. E. S. Green, and which has, we regret to say, terminated fatally. Mr. Green, it seems, had purchased some standing grass near to Swarth-moor, distant from Settle about four miles, which was on that day being carried. He rode over to the field, and, being anxious it should be housed, helped the men at their work, and, as a steep hill had to be ascended, he was attaching an impromptu trace to the horse he had ridden, so as to connect it as leader and assist the cart-horse to pull the load up the hill. Having tied the rope to each end of the trace, he was about to fix it, uncut, to the shafts of the cart, when the horse took fright and started at a furious pace up the hill, dragging Mr. Green (who was encircled) after him. For a considerable distance the unfortunate gentleman, by grasping each side of the rope, succeeded in keeping on his feet. Eventually, however, from exhaustion, he fell, and one foot became entangled. He was in this manner dragged across the moor, roads, and through a brook, towards little Stainforth (a distance of a mile and a half), when the runaway horse was stopped by Mr. Johnson, of Little Stainforth, placing his horse and cart across the road, and thus preventing the animal continuing his horrible race. Mr. Green during this frightful journey retained his self-possession, placed his hands behind his head at the cost of severe laceration to his arms, back, and hips, and was able, as soon as the horse stopped, to extricate his foot.

Mr. Johnson most kindly drove him back to Settle, and the ablest medical assistance from the neighbourhood and Leeds was promptly in attendance. At first it was considered that the injuries were only external, and hopes were expressed by the medical gentlemen that with time and care he would certainly recover; but early on Thursday morning very unfavourable symptoms appeared, and it was then discovered that there were severe internal injuries, from the effects of which he gradually sank, expiring on the evening of the 3rd inst., about forty-eight hours after the accident occurred.

The funeral, which was a choral service, and was attended by a large circle of his friends and neighbours, took place on Saturday, at Settle Church, and was a scene of sadness which will not readily be forgotten.

Mr. Green was the youngest son of the late J. S. Green, Esq., of Houghton-le-Spring, county of Durham, and commenced practice as a surgeon at Settle in 1867. He was only twenty-seven years of age, and leaves behind him a widow and three young children.

THE COLLEGE OF SURGEONS.

AT the meeting of the Council of the Royal College of Surgeons on Thursday, several important matters were transacted.

The name of Frederick Henry Morris, who has been recently convicted of a criminal offence, was ordered to be removed from the list of members, and the same reported to the Registrar of the Medical Council.

A letter was read from Sir William Fergusson, presenting to the College an etching of the celebrated painting by Holbein, of "Henry III. granting the Charter." Mr. Cock also presented a copy of the famous engraving of Sir Astley Cooper, and three different impressions of Sharp's celebrated engraving of Mr. Hunter.

A copy of a letter was read to the Council, which has been addressed by the Medical Council to the several licensing bodies in the United Kingdom, requesting them to co-operate in the framing of a scheme, in each division respectively, for a conjoint examining board and report on the same.

The draft scheme drawn up by the Royal Colleges of Physicians and Surgeons, and amended at the former meeting of the Council, was finally approved.

A committee was appointed, at the instance of Mr. Quain, to investigate the expenses of the College, with a view to their reduction as far as may be practicable.

The museum and library were directed to be closed during September for the usual processes of cleaning, &c.

The Council adjourned to the 19th of October.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At an extraordinary meeting of the College on August 7th the following Members were admitted Fellows:—

Child, Gilbert William, M.D., Oxford.
Copeman, Edward, M.D., Norwich.
Drake, Augustus, M.B., Southernhay, Exeter.
Fox, Tilbury, M.D., Sackville-street.
Hensley, Philip John, M.D., Henrietta-st., Cavendish-sq.
Hitchman, John, M.D., Mickleover, near Derby.
Leared, Arthur, M.D., Old Burlington-street.
Stevenson, Thomas, M.D., Guy's Hospital.
Williams, Chas. Theodore, M.D. Oxon., Park-st., Grosvenor-sq.

At the same meeting the following gentleman was admitted a Licentiate:—

Nead, Henry Carden, St. George's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 3rd:—

Barrow, Frank Edward, Woolwich.
Barrow, Henry John Walter, Woolwich.
Benham, Wm. Thomas, Royal Infirmary, Bristol.
Bland, George, Dalston.
Henson, Walter Knowsley, Hull.
Wade, Reginald, Cross, Somerset.

On the same day the following gentlemen passed their first professional examination:—

William Fairbank, Frank Algernon Hall, and William Harvey, St. Bartholomew's; B. Bernard Ployer, Middlesex Hospital; Joshua Powell and John B. B. Triggs, University College; Francis Henry Thompson and Edward Welchman, St. Thomas's Hospital; Edward Prince Vines, King's College.

ROYAL COLLEGE OF SURGEONS OF IRELAND.—At the quarterly meeting held on July 19th the following passed their preliminary examination in Arts:—

FIRST CLASS.—Thomas J. Sharpe, Richard M. Blake, Samuel Rogers.
SECOND CLASS.—Thomas P. Newbold, Charles S. Richardson, James F. Bourke, Robert A. Elliott, William R. Brereton, Maurice Raleigh.
UNCLASSED.—James Caler, Alexander Duke, Robert R. Elmes, Alfred P. Foster, Richard E. Leonard, George N. Lyon, William R. Lyddon, Robt. W. Minchin, Michael Moloney, Henry O'Farrell, John Prendergast, William H. Tasfe, John G. P. Whitford.

UNIVERSITY OF EDINBURGH.—The following is a list of candidates who received degrees in Medicine and Surgery on Aug. 1st:—

DOCTOR OF MEDICINE.

Brown, Joseph, Scotland, M.B. and C.M. 1866.
Buist, John Brown, Scotland, M.B. 1867, C.M. 1870.
Burman, James Wilkie, England, M.B. 1868.
Christie, James, Scotland, M.B. and C.M. 1868.
*Cumming, James, Scotland, M.B. and C.M. 1868.
Dalton, Henry, Demerara, M.B. and C.M. 1868.
Duncanson, John Janet Kirk, Scotland, M.B. and C.M. 1868.
Foss, Robert William, England, M.B. and C.M. 1868.
Glascott, Charles Edward, England, M.B. and C.M. 1868.
Hett, Geoffrey, England, M.B. 1867.
Heycock, Francis Raworth, England, M.B. and C.M. 1868.
†Hunter, John Michell, England.
†Joynt, Francis George, Ireland.
Law, Alfred Roberts, England, M.B. and C.M. 1869.
MacLaren, Robt. Philip, New Brunswick, M.B. and C.M. 1868.
Munro, Robert, M.A., Scotland, M.B. and C.M. 1867.
Oman, Nathaniel Daniel Isaac, Scotland, M.B. and C.M. 1865.
*Pritchard, Urban, England, M.B. and C.M. 1869.
Roberts, David William, Wales, M.B. and C.M. 1869.
Serra, Claudio Lisboa, Rio de Janeiro, M.B. and C.M. 1868.
Symes, William Henry, England, M.B. and C.M. 1868.
Walker, Archibald Dunbar, India, M.B. and C.M. 1864.
Wright, Strethill Henry, Scotland, M.B. and C.M. 1867.

* Obtained prizes for their dissertations—gold medals.
† Under the old statutes.

BACHELOR OF MEDICINE AND MASTER IN SURGERY.

Adam, Robert Archibald, Canada.
Alexander, Reginald Gervase, Engl.
Alleyne, Robert Harbin, Barbadoes.
Anderson, Thomas, Ireland.
Armstrong, John (M.A. Edin.), Scotl.
Benjafield, Harry, England.
Bentley, Arthur Jas. M'Donald, Engl.
Bligh, Samuel Edmund, England.
Bond, Frederic Adolphus, India.
Bowman, George, England.
Brookfield, John Stores, Ireland.
Brown, Joseph John, England.
Buckell, John William, England.
Coughtrey, Millen, England.
Cowan, John Sim, Scotland.
Dickson, Hanmer, Tripoli.
Dickson, John Edward, Jersey.
Douglas, Justyn G. Durham, Canada.
Drew, Henry W., Cape of Good Hope.
Dunbar, Alexander, England.
Edwards, David Richard, Wales.
England, Richard Edward, England.
Gowan, Charles, Scotland.
Gowan, Peter, (B.Sc. Edin), Scotland.
Grant, James, Scotland.
Greenidge, Campbell Cave, Barbadoes.
Hardman, William, England.
Home, George, Scotland.
Howie, James Muir, Scotland.
Hutchinson, Robinson James, Engl.
Jackson, Thomas Scoresby, England; M.B. and C.M. Oct. 1870.
Jardine, James, Scotland.
Johnstone, John Johnstone Salcomt (B.A. Oxon.), England.
Keith, Alexander Ewing, Scotland.
Lane, William Lemon, India.
Lawson, Robert, Scotland.
Leitch, John, Scotland.
Little, Joseph Henry, Ireland.
Livesay, William, England.
Lowe, John, Scotland.
M'Caskie, Norman, Scotland.
Macdonald, Donald Stewart, Scotl.
Macfie, Johnstone, Scotland.
Macrae, Donald, Scotland.
Major, Herbert Coddington, Jersey.
Mawson, Thomas William, England.
Meadows, Henry, England.
Nicoll, Augustus, Jamaica.
Pearce, Joseph Chaning, England.
Perkins, Henry Allsine, Tasmania.
Sang, William, Scotland.
Shircore, John Catchick, India.
Smith, Geo. John Malcolm, Canada.
Stiell, John, Scotland.
Taylor, David Thorburn, Scotland.
Thomson, John, Scotland.
Thomson, William, Scotland.
Thorburn, Robert, England.
Thornton, John Knowsley, England.
Walker, John Moore, England.
Wightman, John Thomas, Scotland.
Wilson, Edward Moon, Brazil.

BACHELOR OF MEDICINE.

Clarke, John Clelland, Ireland.
Eagar, Robert Taylor Sumner, Engl.
Evans, George Harrison, England.
Gairdner, Matthew William, Scotl.
Harvey, Henry, England.
James, James Rowland, Wales.
Macdonald, John Wm., Nova Scotia.
Macfie, Chas., Scotl.; M.B. Oct. 1870.
Symes, Edmond West, England.
Way, Edward Willis, England.

GUY'S HOSPITAL MEDALISTS AND PRIZEMEN, 1870-71.—The Treasurer's Gold Medal for Medicine: G. Davidson Deeping. The Treasurer's Gold Medal for Surgery: Henry Edward Southee. Third-year's Students: C. H. Golding Bird, first prize, £40; George Turner, second prize, £35; Thomas Eastes and Edmund Arthur Burgess, honorary certificates. Second-year's Students: F. Akbar Mahomed, first prize, £35; George F. Masterman, second prize, £30. First-year's Students: Arthur Henry Jones, first prize, £30; Charles Edward Barnard (Tasmania), second prize, £25; Henry Clarke and William Harry Hansard (equal), £10 10s. each; Hugh Alex. Cookson, Thos. Simmons Morley, Robert Neale Smith, and Carlos Duran, honorary certificates.

APOTHECARIES' HALL OF IRELAND.—The following gentlemen were elected as office-bearers for the ensuing year at a meeting held on the 1st inst.:—Governor: Robert Montgomery. Deputy-Governor: Joseph A. Derham. Court of Directors and Examiners: Thomas Collins, Charles Holmes, Arthur Harvey, Charles H. Leet, Charles F. Moore, Jerome O'Flaherty, Henry P. Nolan, Edward J. O'Neil, George Owens, John Ryan, James Shaw, John Shea, and George Wyse. Examiners in Arts: George Atkinson and John W. Moore. Secretary and Representative in the Medical Council: Charles H. Leet.

THE GENERAL HOSPITAL OF VIENNA.—This institution contains 2000 beds. In 1869 the admissions were 20,214—viz., 12,789 men and 7,425 women. For the last ten years the mortality has varied between 11·4 and 13·3 per cent., except in the cholera year (1866), when it rose to 14·4 per cent. The number of operations performed in 1869 was as follows:—95 amputations, 36 resections, 187 removals of tumours, 10 lithotomies, 9 lithotrities, 7 ovariotomies (6 deaths), 305 operations for cataract, and 249 iridectomies. The total expense was £60,000.

THE CULTIVATION OF THE POPPY IN INDIA.—In a statement furnished to Parliament showing the moral and material progress of India for 1869-70, there occur the following statements regarding the opium trade of that country:—"The belief that the cultivation of the poppy is on the increase in China caused a falling off of £1,150,000 in the net revenue derived from opium; the gross realisations from this drug in 1869-70 were £5,594,137; the net revenue nearly £3,780,000; the number of chests sold were 45,680, at an average price of about £119 17s. 9d. per chest. The number of acres under cultivation in 1869-70 was 801,160, or about 38,000 acres more than in 1868-69. The out-turn for the market of 1871 was estimated at 54,072 chests, and the further extension of cultivation which has been sanctioned will raise the annual provision, it is estimated, to 60,000 chests.

Medical Appointments.

ALLEN, M., M.R.C.S., L.R.C.P., L.M., has been appointed Resident Accoucheur at St. Bartholomew's Hospital.

BARR, Dr. J. W., has been elected Resident Medical Officer to the Bury Dispensary.

BOURNE, M. W., M.D., has been appointed Resident House-Surgeon and Apothecary to the Royal Orthopædic Hospital, vice Patrick Hogan, L.R.C.P.Ed., L.R.C.S.Ed., resigned.

BURMAN, J. W., M.D., has been appointed Assistant Medical Officer to the West Riding Lunatic Asylum, vice Thompson, promoted to the Medical Superintendency of the Bristol Borough Lunatic Asylum.

CAYLEY, W., M.D., M.R.C.P.L., has been appointed a Physician to the London Fever Hospital, vice J. Harley, M.D., resigned.

COOKE, T., F.R.C.S.E., has been appointed an Assistant-Surgeon to the Westminster Hospital, vice Pearse, appointed a Surgeon.

DAPHTARY, G. R., M.R.C.S.E., has been appointed House-Physician to the Seamen's Hospital, Greenwich, vice H. C. Martin, M.B., C.M., resigned.

DRINKWATER, Mr. W., has been elected Medical Officer to the Bicester District and the Workhouse of the Bicester Union; also Vaccinator for the District.

FARRAR, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Boroughbridge and District Amalgamated Friendly Societies, Yorkshire, vice G. Sedgwick, resigned.

HAYWARD, W. H., M.R.C.S.E., has been elected Medical Officer to the Oldbury Board of Health.

HILL, T. W., M.R.C.S.E., L.R.C.P.Ed., has been elected House-Surgeon to the West London Hospital, vice E. S. Lee, M.R.C.S., appointed House-Surgeon to the Leicester Infirmary.

LOANE, J., M.R.C.S.E., has been appointed Medical Officer for District No. 5 of the Whitechapel Union, vice T. Loane, M.R.C.S.E., resigned.

MACKINDER, D., M.D., F.R.C.S.Ed., has been appointed Medical Officer of Health for Gainsborough, Lincolnshire.

MAGRATH, J., L.S.A.L., has been appointed Assistant Resident Medical Officer to the Leeds Public Dispensary, vice E. W. Symes, M.B., M.R.C.S.E., appointed Senior Resident Medical Officer.

MEADOWS, A., M.D., M.R.C.P.L., has been appointed Lecturer on Midwifery and the Diseases of Women and Children at St. Mary's Hospital Medical College, vice W. Tyler Smith, M.D., F.R.C.P.L., resigned.

PEARSE, G. E. L., F.R.C.S.E., has been appointed a Surgeon to the Westminster Hospital, vice F. Mason, F.R.C.S.E., appointed an Assistant-Surgeon to St. Thomas's Hospital.

POPE, H. C., M.R.C.S.E., has been appointed House-Surgeon to the Seamen's Hospital, Greenwich, vice Clapham, resigned.

POWELL, R. D., M.D., M.R.C.P.L., has been appointed Lecturer on Materia Medica at the Charing-cross Hospital Medical College, vice F. W. Headland, M.D., F.R.C.P.L., resigned.

SMITH, C., M.R.C.S.E., has been appointed a Surgeon to the Kentish-town Dispensary, vice H. A. Rawlins, L.R.C.P.Ed., resigned.

SPEDDING, Dr. B. H., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., to the Belfast Dispensary District, vice H. P. Rea, M.D., deceased.

STOTT, T. S., M.R.C.S.E., has been appointed a Surgeon to the Kentish-town Dispensary, vice W. P. Rawlins, M.D., resigned.

THOROWGOOD, J. C., has been elected a Junior Physician to the West London Hospital, Hammersmith.

Births, Marriages, and Deaths.

BIRTHS.

BUCHANAN.—On the 4th inst., at Staines, Middlesex, the wife of John Hamilton Buchanan, M.D., of a son.

EASTWOOD.—On the 2nd inst., at Dimsdale-park Retreat, Darlington, the wife of J. W. Eastwood, M.D., M.R.C.P.L., of a daughter.

HUMBLE.—On the 4th of June, at Paragones, South America, the wife of the Rev. George A. Humble, M.D., M.R.C.P., of a son.

MILLAR.—On the 5th inst., at Albany-street, Edinburgh, the wife of John Millar, M.D., F.R.C.P.Ed., of a son.

PEARSON.—On the 2nd inst., at Upper Phillimore-place, Kensington, the wife of David R. Pearson, M.D., of a son.

SMITH.—On the 8th ult., at Alpha House, Old Kent-road, the wife of Frederic Smith, Surgeon, of a son.

MARRIAGES.

MAUNSELL—FOSBERY.—On the 27th of April, at All Saints' Church, Hokitika, N.Z., Henry Widenham Maunsell, M.B., B.A., Surgeon-Superintendent of the Hokitika Hospital, to Mary Augusta, fifth daughter of Frank Fosbery, Esq., late of Curragh-bridge, Co. Limerick, Ireland.

PALMER—BARBOR.—On the 8th inst., at the Parish Church, Cheltenham, Thomas William Gascoigne, eldest son of Thomas Gill Palmer, Esq., of Royal-crescent, Cheltenham, to Clara Harriette, second daughter of Major George Alexander Barbor, late of the 8th Bengal Light Cavalry.—No Cards.

PALMER—TYLER.—On the 2nd inst., at All Saints', Loughborough, William Grimes Palmer, M.R.C.S.E., L.R.C.P.Ed., L.S.A., eldest son of W. Grimes Palmer, M.R.C.S.E., to Eliza, niece and adopted daughter of John Tyler, Esq., of Thorp Villa, Loughborough.

DEATHS.

ASPRAY.—On the 2nd inst., Charles Aspray, Surgeon, of Newton-road, Bayswater, aged 66.

BRADY.—On the 12th ult., at Geneva, Switzerland, Thomas Clark Brady, M.R.C.S., formerly Surgeon 1st Batt. 8th Regiment.

GREEN.—On the 3rd inst., Edwin Septimus Green, L.R.C.P.Ed., L.R.C.S.Ed., of Settle, Yorkshire, aged 27.

GOWLAND.—On the 28th ult., John E. Gowland, M.D., L.R.C.P.L., of Great James-street, Bedford-row, aged 41.

THORNLEY.—On the 5th inst., Robert Samuel Thornley, M.R.C.S.E., L.S.A., of Long-street, Devizes, aged 46.

Notes, Short Comments, and Answers to Correspondents.

THE ORIGIN OF LIFE.

Biologist asks for our opinion of Sir Wm. Thomson's view of the origin of life on our globe. Physicists express their opinions of physiologists, and we may return the compliment. Sir Wm. Thomson is, no doubt, a great physicist and mathematician, and can boast of having done more than most living men in advancing scientific inquiry. It is too much their custom—we do not say of Sir William, however,—to point at the relatively stationary character of medical science, and to declare that it has not borne the fruit that might have been expected from a tree of such antiquity. An article will occasionally appear at this season in the daily journals, in which we are told to enlarge, register, and systematise our observations; as if every unit of the human machine exactly resembled every other unit, and experiments could be repeated on the living body until its nature, composition, and the forces developed in it were capable of being determined with the same accuracy that we are capable of in the case of an inanimate object or machine. Unfortunately we are at once encountered by that trifling difficulty of "life"; what it is, whence it comes, and why it ceases to be. Physicists have not helped us much in this matter. However they may condition their physical forces, they are baffled by the mystery which underlies the simplest living organism. Sir William Thomson has not, it appears to us, thrown a glimmer of light on the problem of the origin of life. He has advanced a conjecture on the subject, which is, to our minds, quite unsupported by any facts. Even granting that a fragment from another world floating through space might be the vehicle of living germs to this one, whence, we may ask, did the first world obtain these germs? But it is only an hypothesis, after all, that other worlds are teeming with vegetable and animal forms; and if they were, meteoric stones show no traces of such things, and, even if they did, the heat inducing a fused state of the former would be quite as destructive to their living freight as that of our globe when it was in the red-hot fused condition that geologists declare it to have been. To wind-up by an illustration about the bodies launched into space, occasionally jostling each other like ships crossing the Atlantic, appears to us an exercise of the "scientific imagination" that we might expect to find in a book like "The Coming Race," but scarcely in the opening address of the President of the British Association for the Advancement of Science.

Senex, (Rhyl.)—We fail to understand what our correspondent means by his communication, or what good would arise from its publication.

FACTS ESTABLISHED RESPECTING VACCINATION AND SMALL-POX.

To the Editor of THE LANCET.

SIR,—Dr. Barbour, in his communication to THE LANCET of July 29th, established two important facts: (1) that the protective influence of primary vaccination wears out between thirteen and nineteen years of age; and (2) that successful vaccination *with secondary lymph* does not protect from small-pox. It is clear, therefore, that all persons over thirteen years of age should be revaccinated, and that secondary lymph should never be used. The following cases are very instructive.

(*a*) A medical man, aged forty-seven, pitted by small-pox caught in infancy; vaccination completely successful.

(*b*) A medical man, aged forty-eight, who caught small-pox in a form just short of confluent, in his infancy, was vaccinated by a skilful public vaccinator with primary lymph, without any result.

(*c*) A priest, aged forty-seven, inoculated in infancy, inoculation-mark deep and distinct, was vaccinated in three places with complete success.

(*d*) A child, aged two, with four marks of successful primary vaccination, was twice revaccinated with complete success.

(*e*) A staff of sixty nurses in a small-pox hospital, all vaccinated on entrance, has not in forty years furnished a case of small-pox.

It is, therefore, clear (1) that inoculation, vaccination, and small-pox do not render the body insusceptible of cow-pox; (2) that susceptibility to cow-pox is no proof of susceptibility to small-pox; for the child (*d*) took cow-pox three times, and yet was (we may presume) safe as regards small-pox; and *a*, *b*, and *c* were probably safe also, as they were often exposed to the contagion without taking it. (3) It follows from case *b* that the failure of vaccination is no proof of liability to small-pox; for *b* was a doctor, who had been very much exposed to the contagion, and never took it. I need not add that case *e* establishes beyond question the efficacy of vaccination as a prophylactic against small-pox.—Yours truly,

D. HOOPER, M.B. & B.A. Lond.,
Physician to the Surrey Dispensary.

Trinity-square, S.E., Aug. 3rd, 1871.

"UNWHOLESOME," BUT NOT "DELETERIOUS."

COMPLAINT having been made to the Highworth and Swindon guardians of the bread supplied by one of the union contractors, a sample was submitted to Professor Church for analysis, who has reported that the bread was "unwholesome, very sour, offensive in smell, ropy and sticky in consistence, and undergoing active fermentation." He believed it was made from "damaged flour." Stronger condemnation than this would hardly appear necessary; nevertheless, the guardians have referred the question back to the Professor, with a request that he will state whether the bread contained "any deleterious matter."

Anserine, (Oldham.)—The paper, at any rate in its present form, is not adapted to our pages. The details are unnecessarily long. The results might surely be concisely stated.

THE NINETEEN EXAMINING BODIES.

A CORRESPONDENT (*L.F.P.S. Glasgow*, 1870) calls attention to the fact that the Faculty of Physicians and Surgeons of Glasgow is the *only* examining body that rejected more than it passed at the final examinations in 1870. As a successful candidate, he has no hesitation in saying that the failures were invariably due to the thoroughness of the examination. Diversity of method, he says, is most essential in conducting an examination. The Faculty recognises this, and compels *all* candidates at their final examination (whether previously qualified or not) to undergo an examination in (1) writing; (2) clinically at the Royal Infirmary; and (3) orally at the Faculty Hall, in Surgery, Surgical Anatomy, Practice of Medicine, Materia Medica, Midwifery, and Medical Jurisprudence, extending over two days. The examiners at the clinical are distinct from the examiners at the oral. It does not seem to have occurred to our correspondent that the principal fact he mentions might bear quite another interpretation than that which he gives to it, though we do not say that the latter is not the correct one.

THE CONTAGIOUS DISEASES ACTS.

To the Editor of THE LANCET.

SIR,—The Report of the Contagious Diseases Commission, so far as it vindicates the principle of the application of legislative measures to check venereal disease, is satisfactory, and is borne out by the evidence; but when it goes on to deal with the future application of the Act, it shows only too well that the Commission either had not the courage or the wisdom to make their recommendations on this part of the question with equal justice according to the evidence given. The obscene howlings and untruths which the abolitionists have done their best to intrude on every hearth have unfortunately had an effect. The recommendation No. 1 (that the periodical examination of public women be discontinued), if carried out, will unquestionably destroy the entire value of the Act. The experience of the Lock Hospital of St. George's Union has shown what will be the effect of the voluntary system, even s' ould the recommendation No. 6 be carried out, providing hospital accommodation in London and other towns. There will be no lack of patients. The existing Lock Hospitals will continue full, and the new ones will be rapidly filled. Diseased women will still come forward without hesitation or objection to be examined, and will submit themselves voluntarily to treatment. But there will be this difference: they will rarely present themselves until they have been diseased many weeks; whereas by periodical examination with the speculum, syphilis (which is all we need trouble about) is undoubtedly easily detected in its early stage, indeed often before the woman herself knows she is diseased. Thus she is not only cured months sooner, but is prevented from spreading among the community more than a minimum amount of contagion. On the other hand, I can positively state that very few prostitutes of the lower class ever apply voluntarily to be examined till they are driven to it by actual want and starvation, from their inability to follow any longer their occupation through the violence of the disease; and it is a fact that out of more than 500 women whom I have treated during the last four years at the St. George's Lock Hospital, not a dozen have presented themselves with primary Hunterian chancre before the advent of secondary or tertiary symptoms; indeed I have now under my care two cases of syphilitic caries in prostitutes, who have been carrying on their vocation up to the time they came under my care a few days since, nor have they had before any treatment. With gonorrhœa and simple venereal ulcers it is different. The women generally apply at once when the pain and inconvenience are greatest; but so insidious and often painless is the progress of a Hunterian chancre in the female, that I believe women rarely know they are seriously diseased for weeks, and sometimes months, after infection. Nor is the disease often discovered by the men who cohabit with them, and whom they infect, the period of incubation being so variable, from fourteen days to six weeks or more.

Thus, instead of syphilis being checked by the voluntary system, it will be spread with undiminished frequency, and the women not coming under treatment till their health is ruined, their escape from a life of prostitution will be rendered often impossible. In my evidence before the Commission, I stated that many girls were sent into homes and to service through the exertions of the chaplain and lady visitors; but that when doing well they were often returned more than once for further treatment, the disease having reappeared in a secondary or tertiary form; so that, worried and wearied by the changes and the feeling of disgrace, they become careless of themselves, and generally go back to the old life after all.

I am, Sir, yours obediently,
Parliament-street, August, 1871. THOS. BOND.

Mr. S. Saunde Brown (Clifton) is thanked. The subject shall be hereafter brought to the notice of our Sanitary Commissioner, who is at present absent from town.

CHRONIC DYSENTERY.

To the Editor of THE LANCET.

SIR,—In the "Notes on Fifteen Cases of Chronic Dysentery," forwarded from the Seamen's Hospital, Greenwich (THE LANCET, July 29th, page 160), I see Mr. Clapham suggests the explanation that the great excess in the number of stools between the hours of 8 P.M. and 8 A.M. was probably due to the lowness of the temperature between those hours. I think a more satisfactory explanation of the phenomenon may be given. Is it not likely that the mode of life has more to do with the matter? It is most probable that the patients in question received the greater part of, if not all, their nourishment, placebos, &c., between the hours of 8 A.M. and 8 P.M. The substances so taken would pass through the healthy small intestines without causing any symptoms; but in the rectal side of the ileo-cæcal valve they would come in contact with the ulcerations, the irritation so produced causing increased vermicular movement of the gut, with frequent evacuations. The time taken for substances to pass from the stomach through the small intestines to the large is probably about twelve hours, so that the food taken first in the morning will reach the large intestines in the evening, and that taken in the evening on the morning of the next day. On the other hand, presuming that little or nothing was put into the stomach during the night hours, the principal stimulant or irritant applied to the large intestines in the day-time would be the blood &c. from the ulcerations; hence, as the quantity of irritant was less, the stools would be fewer, but would have a much larger proportion of blood in them.

Yours obediently,
July 29th, 1871. G. S. M.

A GERMAN'S OPINION OF ENGLISH MEDICAL EDUCATION.

WE English are never tired of drawing unfavourable comparisons between the German system of education and our own, nor of doing homage to the elaborate scientific training which the medical student of Berlin or of Vienna is supposed to go through. It thus becomes a matter of great interest when we are enabled to hear a German's opinion of our own educational system. A short time since we were thrown repeatedly in contact with an American citizen, of German extraction, who had come across the Atlantic for the purpose of studying medicine in the various medical schools of Europe. He was a man of considerable ability and sound practical sense. He had spent a term of several months at Vienna, at Berlin, and at Paris, and ultimately came to London before returning to America. We last saw him a few days before he was to sail, and he most heartily expressed his regret that he had not visited London first instead of last. He said the more he saw of our English system the more he liked it. He knew of no Continental schools where the practical and theoretical departments of study were so happily blended, or in which every student was so readily enabled to make acquaintance with the practical details and responsibilities of the profession he had chosen. On the whole, he thought the English system was the best qualified of any he had seen to fit a man, after a term of study of moderate length, to practise all branches of his profession respectably—that is to say, with a considerable amount of benefit to his fellow-creatures and of credit to himself. He considered the German system too elaborate for the ordinary run of students, especially for those whose lot it would be to practise in rural districts. The almost endless subdivision of the various branches of study and practice into innumerable "specialties" was all very well for those who had already taken the wide comprehensive glance over the field of their forthcoming labour; but for those who had not done so, whose minds were as yet in a chaotic condition, he believed it to be very bad. It was as though one were to try to teach geography by means of the study of Post-office Directories, or strive to convey an idea of general anatomy by submitting the various tissues to a microscopical examination. We feel there is much truth in all this, although we are firmly convinced that our own system is capable of, and must soon undergo, many improvements.

STRAY NOTES ON CHOLERA.

To the Editor of THE LANCET.

SIR,—A record of isolated facts, of little value in itself, may be useful as evidence for or against some of the legion theories begotten of that Proteus and mysterious parent, cholera. Perusal of valuable communications and notices in your journal induce me to offer one or two jottings from my own experience.

While surgeon to her Majesty's 82nd Regiment in India I had to contend with two very severe epidemic outbreaks—the first at Delhi in 1861; the second at Jullundur in 1867; one before, the other after, the regiment had been in the hills. At Delhi we were "in wings." One wing was scattered through native buildings within the city walls, the best that were at the time available, but all bad in every sanitary requirement, more especially two houses occupied by one of the companies and the band, which, though the hottest, the worst ventilated and drained of all, did not furnish a single case of cholera. Generally speaking, this wing escaped with impunity. The other was in the Palace, in a sanitary view (with one exception) considerably better off; the rooms occupied were more lofty and better ventilated; they were the public audience halls and dwelling places of the last of the Mogul Princes; yet here the disease showed unusual virulence, which may in a great measure be explained by the continuous defilement of an extensive neighbouring surface, so broken up and irregular as to defy the most active efforts at supervision and suppression. This was accomplished by hundreds of native coolies, recently prostrated by famine; no doubt, too, with diarrhœa from unwholesome food or of choleraic nature amongst them at the time (cholera amongst the natives preceded some days its appearance amongst the troops), who, in defiance of remonstrance, were employed daily inside the Palace walls. The extent and severity of this portion of the epidemic may have depended on air diffusion of cholera excreta, or development of a putrescent state of atmosphere favourable to the reproduction of the *materies morbi*, or more probably on water contamination. Rain was falling constantly in heavy showers, with intervals of intense heat, and the Palace wells could scarcely escape contamination. Their use was, indeed, prohibited, and both wings supplied from the same source with drinking water; but, no doubt, the supply near at hand was often used clandestinely, though not admitted. At Jullundur, too, the outbreak is most readily explained by water. It did not occur till just the end of the epidemic season, as recorded (I think in your pages) of Sealkote. It was excluded for months by a strict cordon sanitaire, turning aside first the stream of stricken pilgrims from Hurdwur; subsequently shutting off communication with neighbouring villages, where the disease followed on the footsteps of the pilgrims, and whence it afterwards extended from village to village, till the European station was encircled. The country was thus thickly sown with accumulated cholera excretions, when a very heavy rainfall flooded the whole surface, and carried them into the rivers and wells, poisoning the water-supply generally; at all events, directly after this downpour the troops (up to that date free) were severely smitten.

In a recent letter, Dr. De Renzy alludes to connexion between cholera and venereal. I made a similar observation at Delhi and Jullundur. A great number of attacks occurred in men recently treated (non-mercurial) for venereal affections. In treatment, except prophylactic, I have no faith at Delhi, where its chief feature was small repeated doses of calomel. The mortality, as remarked by the Cholera Commission, contrasted favourably with that of other stations. Severe salivation, gastric irritability, and debility were its frequent sequelæ. Removal into camp on both occasions at once checked the progress of disease, but left its after-effects. For some years after, the percentage of deaths was markedly higher among the men who had been under canvas, and many a soldier has dated to me his first loss of health to exposure in a cholera camp.

I remain, Sir, yours truly,

July, 1871. H. D. FOWLER, Staff Surgeon-Major.

SMALL-POX IN SWITZERLAND.

THE rumoured prevalence of small-pox in Switzerland was calculated to create no little anxiety in the minds of the increasingly large number of persons who proceed there every year *for* the enjoyment of its grand picturesque scenery, or for the purposes of vigorous exercise or the restoration of health. It would certainly prove a most unpleasant as well as unprofitable way of spending a month in that country to contract an attack of small-pox, however mild, in one's own person, and it would scarcely prove less so to the physician to find himself consuming his holiday in attending a fellow-tourist or in nursing a friend stricken with that disorder. However, there seems to be no cause for alarm. We are assured that the statements were of the most exaggerated kind, and that anyone going to Switzerland at the present time would, on the whole, incur far less risk of contracting small-pox than in remaining at home. We learn, too, on official authority, that vaccination has been compulsory in all the Swiss cantons nearly ever since its introduction as a sanitary measure, and that since then the disease, when it appeared at all, has never committed any serious ravages, which is more than we can say in England.

ON A NEW RESPIRATOR.

To the Editor of THE LANCET.

SIR,—Having read in your journal of the 8th July Dr. Somerville Oliver's notice on the use of oakum as a respirator, it recalled to my mind a similar apparatus which I last winter constructed, spun-glass placed behind a sheet of wire-gauze and perforated plate being therein used. I was led to adopt this from the success which attended the use of spun-glass as a substitute for carded cotton in the filtration from air of the germs, sporules, dust, or whatever those minute particles which float in the atmosphere, and to which attention has so much of late been attracted by Prof. Tyndall, may be. In a repetition of Prof. Tyndall's experiments made by Mr. Herschel, of Anderson's University, at the *conversazione* of the Fellows of the Faculty of Physicians and Surgeons of Glasgow, it was found impossible by filtering the air through carded cotton entirely to remove these particles. As I happened to have at the time with me some spun-glass to exhibit its powers of filtering strong acids and alkalies, it was proposed to substitute this for the cotton. This was accordingly done, when it was found that the air so treated was entirely filtered of all such impurities. It then occurred to me that spun-glass might prove very useful as a respirator, either alone or as an adjunct to the materials at present in use. Acting on this idea, I manufactured a respirator constituted as above described, which was possessed of the following advantages:—It was not more expensive than the ordinary forms, was quite equal to them in power of elevating the temperature of the respired air, thoroughly purified the air of all solid matters suspended therein, and acted as a very serviceable reservoir for such substances as carbolic acid. I should think that such an apparatus would be, at any rate, more elegant, durable, and cleanly than one of oakum.

Your obedient servant,

Glasgow, July 24th, 1871. JAS. ST. CLAIR GRAY, M.B., C.M., &c.

A Non-Trader writes to us regarding a subject which, he says, is greatly ignored by the profession—viz., "trade combined with physic." He considers the public will scarcely respect a profession several members of which maintain "the open shop of the 'physician and surgeon,' backed up by a patent medicine department." Our correspondent thinks that the Colleges do not discharge their duty to the non-trading part of the profession, and he would have them make a bye-law (non-retrospective in character) to cure the evil.

Emunctasis.—We advise our correspondent to apply directly to Prof. Lister for the information he seeks. We are unable to say with certainty what is the latest formula in use by that surgeon.

PRELIMINARY SCIENTIFIC M.B. EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—May I venture, through your columns, to seek information upon a subject of considerable importance, not only to myself, but to many other aspirants to graduation in the London University. I would call your attention to the parts I have italicised in Question 5 in the recent preliminary scientific M.B. examination. It runs as follows:—

"Enumerate the more important vegetable alkaloids, *giving their properties, and the natural orders of the plants producing them.*"

The Calendar, Sir, recommends a year's previous reading, apart from all medical studies, to be given to this examination, and leads us to believe that we are not to be questioned in *Materia Medica* or Organic Chemistry until the first M.B.

I should like to know if it is generally considered right and fair that candidates should be examined in subjects of which they have had no previous intimation, and failing in which, as an enormous percentage have failed, they lose, as far as professional education is concerned, two years. Is our course of reading to be guided by the Calendar?

The matter is one of such importance that I feel justified in appealing to you to bring it under public notice, with the hope that your influence will tend to alter what is considered to be a very unsatisfactory state of things.

I am, Sir, your obedient servant,

August, 1871. A CANDIDATE REJECTED IN BOTANY.

Oir.—We have found Hilpert's octavo Dictionary excellent for all ordinary and most medical subjects. It can be obtained from Messrs. Williams and Norgate, Henrietta-street, Covent-garden, for 4s. 6d. The quarto edition, a much larger work, is 24s. Flügel is also very good; but there is no Dictionary of modern date that gives recent scientific terms well. The price of Flügel, 2 vols., is 18s.; the German-English part alone, 10s. 6d.

Hiram Abiff does not inform us whether the gentleman's name is in the Medical Register.

Enquirer, (Strabane.)—We believe so. We are not aware of any fixed limit as to age having been authoritatively laid down, although this would, no doubt, form an element in considering the eligibility of a candidate for appointment.

ALL WORK AND NO PLAY.

A Resident Medical Officer to a London Dispensary tells us that he has held his appointment for nearly three years, and that during that time he has not had a holiday. It appears that the Committee have steadily refused to grant him one, except at his own expense. As his salary is £100 per annum only, there could be very little enjoyment in a holiday obtained under such circumstances; in fact, the resident medical officer, not being able to afford the temporary loss of his income, has been compelled to forego any claim to that boon. This strikes us as a mean and unusual proceeding on the part of the Committee. Few people deserve, or indeed require, a holiday more than the medical officers to our charitable institutions. The several members of the Committee take care, no doubt, to secure one for themselves.

Mr. B. C. Crosbie.—The false use of the title "surgeon" constitutes a violation of the 40th clause of the Medical Act. The medical men of the neighbourhood should associate themselves together to vindicate the law. Probably a simple warning of a prosecution would suffice to remedy the evil of which complaint is made.

A Practitioner requires a trip to Scotland or Switzerland. "A stitch in time," &c.

THE PRESERVATION OF LYMPH IN TUBES.

To the Editor of THE LANCET.

SIR,—The subject of vaccination from lymph preserved in capillary tubes being now of some interest, and varied opinions being entertained as to the efficacy of lymph so preserved, I beg to forward you two tubes for the purpose of experiment, which have been in my possession thirteen years and nine months, having been collected by me in October, 1857. I have only a few remaining, which I may say are the worst, or rather the rejected, specimens of a large collection I made at that time, the best being chosen as required for use.

My plan has always been to start with the tube, which will vaccinate several children, and then to keep up the supply by arm-to-arm vaccination as long as possible; always preferring fresh lymph, but seldom or never failing to obtain satisfactory results with my tubes. In this way my stock has lasted me until now, having been of the greatest service to me in China, the Cape of Good Hope, and, I think, in Canada. A brief history of these tubes may be interesting. I took them to China by the overland route in July and August, 1858. The heat they were subjected to may be imagined when we used, going down the Red Sea, to *cool* the air down to 110° in the shade by means of punkas. This did not affect them. For seven years or more they stood true to me at the Cape, though I have seen it there 109° in the shade. After a visit to the old country, they spent nearly three winters in Canada, where they have seen the thermometer 20° below zero, and must often have been frozen in spite of our efforts to keep out the cold. If, therefore, you should find, as I have not a doubt, that the lymph still retains its vitality, I trust Dr. Farquharson will pause before saying anything to depreciate our most useful ally,

THE CAPILLARY TUBE.

RETURNS OF THE LICENSING BODIES.

In very late answers to our inquiries concerning the accuracy of the Returns of the Licensing Bodies, we are informed that they were inaccurate in regard to the M.D. of London University. This degree was last year conferred on eleven persons. We are quite prepared to hear of other omissions. It is remarkable that such important returns should be sent out imperfect from the Medical Council.

An Injured Man seeking Justice.—We fear that our verdict in a matter so much outside our province would not avail anything.

RIVER POLLUTION.

To the Editor of THE LANCET.

SIR,—Under the above heading I notice in your journal a short paragraph on the pollution of the river Alyn by tar, petroleum, and other noxious refuse; an assertion is also made that certain cases of cholera occurring at Rossett were due to this water contamination. I certainly should like to see upon what scientific authority such an assertion is made. I cannot see why tar and petroleum—substances which have decided antiseptic properties—should be the parent of such a dire disease. Some few years ago, when the mania for oil-making was very great in this district, we had very extensive overcrowding amongst the oil workmen, so much so that beds did a double duty, a night shift and a day shift. During the whole of this period the health of the neighbourhood was never better. Of fevers we had none, though the drainage was most culpably bad, as is well known to those who visit newly "sprung up" districts. This I attributed at the time to the thorough disinfection each workman got at his vocation; his clothes, his skin, his very atmosphere, was redolent with the vapours of tar and petroleum. At the present time we are afflicted with small-pox, and very extensively; so far the disease has not attacked a single oil workman's house.

I have not written this with any intention of defending river pollution, but rather to correct false—as I believe them—assertions. Petroleum, or rather paraffin oil, is a most admirable remedy for scabies—another proof of its detergent qualities.

Yours truly,

Alyn Bank, near Mold, Aug. 5th, 1871. ROBT. PLATT, L.R.C.P., &c.

PRESSED BEEF AND DESICCATED BEEF-JUICE.

Dr. Taylor, of Tudor House, Anerly, writes (in reference to the remarks which appeared in our impression of the 15th ult., relative to the process of preserving meat by pressure, as about to be carried out by a Company called the Pressure Meat Preserving Company, and which stated it to be a new method introduced by Mr. Henley, an eminent engineer) to say that in April, 1860, he forwarded to us for publication a detailed account of his method of preserving meat by pressure and desiccating the juice. He, therefore, claims for himself the priority of this invention, and has no doubt that Mr. Henley will readily haul down his colours, and give due justice to our correspondent.

DEATH OF ALDERMAN PEMBERTON, OF PRESTON.

WE have received the *Preston Guardian*, with an account of the death of Alderman Pemberton. We are of opinion that the comminuted fracture of the shoulder cannot be ignored in any scientific explanation of his delirium and death. If even a drunken man comes by such an accident, with other evidences of having sustained considerable violence, and soon after dies with delirium, even if it be like delirium tremens, it is rather hard to have his death entirely dissociated from the accident, and attributed solely to excessive drinking. Notwithstanding this criticism, which we think only just, we do not imply that if the deceased had been a perfectly sober man the injuries sustained in the seriously absurd affair at the Exchange Hotel would have had the fatal issue which they had.

POTT'S FRACTURE.

To the Editor of THE LANCET.

SIR,—In a late number of your journal I noticed in the correspondents' page a query, "What is Pott's fracture?" and the reply, a quotation from Percival Pott's works. I am unfortunately in a position to feel very interested in the question, having two months ago met with exactly the same accident. It occurred whilst out with a hunting party in the neighbourhood of Port Elizabeth. We were assembled in the forest, and were enjoying a quiet pipe under the pleasant shade. Before us was a withered old tree, quite hollow, its branches interlaced with numerous climbing plants, which hung nearly to the ground. The idea of making a grand bonfire of the old forest king was easily put into practice, and the flames were soon roaring up his centre, and fast consuming his withered arms. One large horizontal branch stood the fiery trial for some time, and, school-boy like, we thought to end the pyrotechnic display by pulling it down amid a shower of sparks. Two or three of us laid hold of one of the so-called "monkey-ropes"; but, instead of bringing the large limb down, the old fellow had his revenge: the rope broke, and back we went, and as I slipped on the moist ground, thick with leaves, I felt, and heard at the same time, the unmistakable snap of a broken bone. In less than a minute my friends, who were laughing at the catastrophe, had the boot off, and the foot brought into position. A bark splint, lined with a piece of flannel vest, was quickly improvised, and with difficulty I was carried out of the deep ravine. The foot was completely dislocated, fibula broken, and I think, now that the swelling has somewhat subsided, I can detect oblique fracture of the internal malleolus. You can imagine a fifty mile ride home in a bullock waggon over a horrible road did not improve the condition of the joint. After more than two months' complete rest, I find the ankle-joint very thick, capable of very little motion, and I am unable to bear any weight upon it; the heel also is slightly raised; the foot will not come flat on the ground, as if there were some dislocation forward. The idea of having a stiff ankle *ad finem*, to one who is engaged in active life, and fond of an occasional "outing," is very depressing, and I should feel very much obliged if any of your numerous readers who may have had large experience in Pott's fracture can give me an idea of the results as to the usefulness of a joint after similar accidents.

It was a curious coincidence that in the fortnight when I came to grief there were three other ankle-joint injuries. One, a compound dislocation, in which erysipelas supervened. Amputation was performed above the knee, but, as usual, fatal; secondary hæmorrhage on the third day. Another case was that of a man who, falling from a height of forty feet on hard ground, fractured his skull, and on post-mortem examination I found that Pott's fracture had taken place, with also oblique fracture of internal malleolus. The skin was unbroken in this case.

The question, what is to be done in cases of compound dislocation of the ankle-joint, is, I apprehend, one of the most anxious that can come before the surgeon. In a practice of fifteen years I have distinct recollection of five cases. In two, amputation was performed some days after the accident; patients above fifty years of age; result fatal. In two, amputation refused; result fatal. And one, after more than two years' weary confinement and suffering, I see nearly every day with a stiff joint, but a very useful limb. In my humble opinion, if the accident occur—i. e., compound dislocation—in a patient above thirty, and in one who has long abused his health by hard living, primary amputation is the only chance of saving life.

Perhaps these few remarks may induce one of our metropolitan chiefs to give us a *clinique* on Pott's fracture and compound dislocation of the ankle-joint. If so, it will be read by none with greater interest than,

Your obedient servant,

Port Elizabeth, South Africa, June, 1871. FREDERICK ESDON.

An Inquirer (Brighton) had better take the opinion of his own medical adviser in the matter.

Mr. A. W. Moore.—We scarcely think it necessary to discuss the opinions and practices of the Shakers, although we agree with the view taken by our correspondent.

CICATRISATION OF LARGE ULCERS.

To the Editor of THE LANCET.

SIR,—I have had under my care lately a man with an extensive lacerated wound of the hand and wrist. A large flap of skin was nearly detached from the front of the wrist and palm of the hand, and, being reflected, exposed the deep fascia to the extent of about four square inches. So severe was the laceration and bruising of this flap that I had no hope of its keeping its vitality. I, however, to give it a chance, laid it down, and secured it with three stitches, and for four or five days I thought it would, after all, adhere; but when the wound began to suppurate freely, and granulations to spring up, the entire piece sloughed and came away, leaving an extensive granulating wound. But the remarkable and, I think, interesting point in the case is, that on the second or third day after this, three separate, shining, bluish points of cicatrisation appeared towards the middle of the wound; though at first not larger than pins' heads, they are rapidly growing and extending, and promise to shorten much the duration of the healing process. These minute points or islands of skin seemed at first exactly like those produced in successful cases of the (now) well-known operation of skin-grafting.

I shall be glad if you will insert these brief notes of the case in your valuable journal, as some of your correspondents may be able to account satisfactorily for the appearance of these "skin islands," in my experience very unusual.

Yours truly,

Coalbrookdale, Salop, July 20th, 1871. THOMAS LAW WEBB.

SHORTENING AFTER FRACTURE OF THE SHAFT OF THE FEMUR.

E. H. L.—Recovery without any shortening is not to be expected, and is, in fact, very rare. It is a thing to be aimed at, but not promised. It is more possible in young than in older patients, the fracture being more apt to be transverse. The average shortening is three-quarters of an inch. Our correspondent need not reproach himself for his results.

TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—The admirable article "On the Etiology of Typhoid Fever," in your impression of July 15th, recalls to my mind some circumstances connected with epidemics of the disease occurring in my practice years ago, and confirms me in the opinion which I have long entertained that typhoid fever is not, in the ordinary sense of the word, *contagious*.

In the spring of 1854 or 1855 (a very dry season) an epidemic of typhoid of a very severe character occurred in the hamlet of Whatcombe, about half a mile from the village of Whitchurch, in this county. It was entirely confined to the inhabitants of the houses which obtained their drinking water from a well (situated immediately opposite the doors of three cottages), the mouth of which was much below the level of the surrounding ground, and consequently easily admitted of the flow of refuse matters, thrown out of the houses, into the well. Adjoining houses, which obtained water from other sources, were free from the disease; and the neighbouring village of Whitchurch, with which there was constant communication, was absolutely free from typhoid, with the exception of two men, who worked at Whatcombe, and were accustomed to take their midday meal at a cottage near the well, and, doubtless, drank of the water. Suspicion soon fell upon the well, which, being examined, was found in a very impure state. It was closed *pro tem.*, and no other case occurred. In due course it was cleansed, and the surrounding ground raised, with good results.

In another village an epidemic of typhoid broke out in two adjoining cottages, every inmate of which (eight in all) was attacked, and three died. The cause was easily traced to impure water. Two of the nurses were attacked, were removed, *did not* communicate the disease, and made good recoveries.

The village of Chesselbourne, near here, was formerly often the scene of more or less severe epidemics of typhoid fever. The inhabitants (about 440 in number), almost without exception, obtained their water from a stream which was exposed to contamination from various sources. In dry seasons, when the water is low, the impurity is less, owing to the absence of surface water, which, of course, brings foul matters from the farm-yards, which otherwise would drain away into the soil, and it so happened that typhoid was always most prevalent in wet seasons. After a very severe epidemic, urgent representations being made in the proper quarter, some wells were sunk, and since that time there has been a marked difference in the health of the place as regards typhoid fever. Sporadic cases have now and then occurred, as, in spite of all that can be said, people are always to be found who prefer drinking foul water, easily obtained, to going a short distance to get pure water.

One more case occurs to me. The inhabitants of two cottages, isolated, who ordinarily obtained their water from a well, were driven, through the well being out of repair, to get water from a small stream flowing down from a village where typhoid was epidemic, and which must have received poisonous dejecta. Some of these people were speedily attacked with the disease.

My experience leads me to confirm Dr. Latham's opinion as to the *comparative* rarity of nurses &c. attending on the sick becoming affected. That such cases do happen cannot be denied, and I have sometimes been at a loss to explain them consistently with the idea of the ordinary non-contagious theory. Dr. L.'s explanation removes in a measure the difficulty. As a rule, I find it much more common to meet with only one or two cases in a family, and it is the exception for more to be affected at once. It is very desirable, if possible, that the question should be settled, as medical practitioners are constantly interrogated as to the danger of infection, and it is not always easy to explain the peculiar circumstances of the case so as to satisfy the minds of timid people. I have heard of medical men speaking of the disease as the "least contagious kind of fever," I suppose because they find it rarely spread by what appears to them to be contagion. But might we not on the same principle (if the reasoning were correct) say that a case of scarlatina, which, as we all know, may prove a solitary case, was less contagious than another which proved the nucleus of a severe and wide-spread epidemic? But the solitary case is the exception generally in scarlatina, and due to some cause not always easy to determine. I believe it will be found, as a rule, that wells sunk through a sandy soil are more likely to be contaminated by the proximity of a cesspool than those sunk in chalk, and this perhaps may be the reason why manure heaps are often seen very near the mouth of a well in the latter stratum without the water getting impure.

Your obedient servant,
Cerne Abbas, Dorset, July 31st, 1871. JOHN EWENS, L.R.C.P. Lond.

A Stammerer.—The subject is not one to be treated theoretically in letters. Our correspondent suggests a new special hospital for stammerers, and would seem to contemplate sending many of the clergy to it.

CONTAGIOUSNESS OF SHINGLES.

To the Editor of THE LANCET.

SIR,—Some writers on diseases of the skin omit to state their opinion of the contagious nature of shingles. There are exceptions; Cazenave believed them to be so, and states that they are at times epidemic. The old authorities appear to have thought them contagious, as they class them with erysipelas, and they seem to have mistaken them for this (but the appearances are so very different), and from their remarks they would appear to have so considered them from their spreading to members of the family of the person first infected. Several cases have occurred to me in practice, which have led me to form the opinion that they are contagious in a high degree. I remember one in the wife of a squire, who came into contact with a labourer's child who was under my care for shingles, and in four days a severe attack ensued, which lasted for some time and caused great constitutional disturbance. The pain continued for a long time after the eruption had disappeared, and only yielded to a long course of tonics generally and local anodynes. If careful inquiries be made, in most cases evidence can be obtained of communication with an infected person. I always take the precaution of isolating the sufferer during the period while the eruption is rigorous.

I remain, Sir, yours truly,
Leamington, July 29th, 1871. JAMES THOMPSON, M.B.

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. South; Dr. Braxton Hicks; Dr. Tilt; Dr. Thorougood; Dr. Protheroe Smith; Dr. Wynn Williams; Dr. Morell Mackenzie; Dr. Allbutt; Mr. J. Angus; Mr. Castell; Dr. Tayler; Mr. Boyle; Mr. Cole; Dr. Eastwood, Darlington; Dr. D'Oyle, Portsmouth; Mr. O'Cane; Mr. Chadwick; Mr. Eaton, Uppingham; Dr. Aveling; Mr. Coghill; Mr. Booth; Mr. Gregor; Mr. Stephens; Mr. Pick, Harborough; Dr. D. Hooper; Dr. Barham, Truro; Dr. Farrar, Boroughbridge; Mr. Ebbs; Mr. Waters; Mr. Bolton; Mr. Gray; Mr. Wise; Mr. Moody; Mr. Polton; Dr. C. B. Fox; Mr. B. Pattison; Mr. J. Archer; Dr. Underhill, Tipton; Mr. Hellis, Winchester; Dr. Johnson; Dr. Sankey, Cheltenham; Mr. F. Jordan; Mr. Square, Plymouth; Mr. Bradley, Manchester; Mr. Power, Lewisham; Dr. Maccall; Mr. Adams; Dr. C. Reed; Mr. Maunsell, Hokitika; Dr. Moir, Longue; Mr. Greenway, Plymouth; Dr. Platt, Mold; Mr. Brazier, Aberdeen; Mr. Spence; Dr. Swayne, Bristol; Mr. Southam; Mr. Hovell; Dr. Spedding, Holywood; Dr. Jeaffreson, Newcastle; Dr. Heywood Smith; Mr. Brookes; Mr. Cheeshire, Birmingham; Dr. Dewar; Mr. Ashburner; Dr. Gordon; Mr. J. Wood; Dr. Ransom, Wakefield; Mr. Becker; Mr. Brown; Dr. Fisher, Lytham; Mr. Salmon; Mr. Cresswell, Dowlais; Dr. Newham, Winslow; Mr. Macclean, Swindon; Mr. Norman; Mr. Moore; Mr. Charles; Mr. Carver, Enfield; Dr. Metcalfe, Geneva; Mr. W. Smith; Dr. Lowe; Dr. Palmer, Loughborough; Mr. Gale, Uppingham; Mr. Berridge, Chester; Mr. F. Smith; Dr. Davies, Dublin; Dr. Millar; Mr. Waller, Worksop; Mr. Tarrant, Eastbourne; Mr. Cooper, Bristol; Mr. Young; Dr. Hill; Mr. Dixon; Mr. W. J. Smith, Rotherham; Mr. Wakefield; Mr. E. Lund; Mr. Baker; Dr. Drinkwater, Bicester; Dr. Mapother, Dublin; Mr. Thomas; Mr. Eadon, Sheffield; Mr. Currey; Mr. Allen, Brighton; Dr. Richardson; Mr. Hunt; Mr. Mursell, Nottingham; Mr. Parker, Great Bowden; Mr. Morgan, Pordingbridge; Dr. Hoxie, Winchester; Mr. Jennings, Plymouth; Mr. Munt, Hastings; Mr. Watson; Mr. Shepheard, Barton; Mr. Saunders, Bristol; Mr. Harwood, Cleator; Dr. Prestwich, Oldham; Mr. Beggs, Ilfracombe; Mr. Hardy; Mr. Russell, Neath; Mr. G. Eastry; Mr. G. Allen, Redcar; Mr. Rendle; Dr. Buchanan, Staines; Mr. Pestell; Mr. Lane; Mr. Kendall; Dr. Campbell; Mr. Stocker; X. T.; A Practitioner; M.D.; A Hospital Surgeon and County Magistrate; R. H. L.; A Stammerer; Emanuensis; G. A. H.; Medicus; A Subscriber; A Non-Reader; Delta; An Undergraduate; &c. &c.

Preston Guardian, Cosmopolitan, Cumberland Advertiser, Chloralum Review, Birmingham Daily Gazette, Lincolnshire Chronicle, Belfast News-Letter, Journal of the Society of Arts, Indian Medical Gazette, Western Mail, Manchester Evening News, Kentish Express, North Cheshire Herald, Bombay Gazette, and *Sheffield Independent* have been received.

Medical Diary of the Week.

Monday, Aug. 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Wednesday, Aug. 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Aug. 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.

Friday, Aug. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 19.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.